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AUTHOR Goodson, Max R.; Hagstrom, Warren O.

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ABSTRACT

This paper deals with an approach to school system change -- the establishment of a change agent team to plan for and manage specific changes and to facilitate and perpetuate an innovative climate. It presents case studies of change agent teams in three Wisconsin school systems. A model for change agent team planning and action -- problem diagnosis, strategy planning, strategy activation, and result evaluation -- is described. The activities of the teams and their colleagues are related, and an evaluation of the interventions based on systematic data is included. (Author)

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Technical Report No. 177

CHANGING SCHOOLS: CASE STUDIES OF CHANGE-AGENT TEAMS IN THREE SCHOOL SYSTEMS

By
Max R. Goodson and Warren O. Hagstrom

Report from the Project on Models
for Effecting Planned Educational Change

Max R. Goodson, Warren O. Hagstrom, and Burton W. Kreitlow
Principal Investigators

Wisconsin Research and Development
Center for Cognitive Learning
The University of Wisconsin
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Statement of Focus

The Wisconsin Research and Development Center for Cognitive Learning focuses on contributing to a better understanding of cognitive learning by children and youth and to the improvement of related educational practices. The strategy for research and development is comprehensive. It includes basic research to generate new knowledge about the conditions and processes of learning and about the processes of instruction, and the subsequent development of research-based instructional materials, many of which are designed for use by teachers and others for use by students. These materials are tested and refined in school settings. Throughout these operations behavioral scientists, curriculum experts, academic scholars, and school people interact, insuring that the results of Center activities are based soundly on knowledge of subject matter and cognitive learning and that they are applied to the improvement of educational practice.

This Technical Report is from the Models for Effecting Planned Educational Change Project in Program 3. General objectives of the Program are to develop and test organizations that facilitate research and development activities in the schools and to develop and test the effectiveness of the means whereby schools select, introduce, and utilize the results of research and development. Contributing to these Program objectives, the main objective of the Planned Change Project is to develop and test system-wide mechanisms which local school systems can employ in utilizing knowledge and innovations of the type generated by the Center. Change-agent teams have been organized in area school systems and their effectiveness is being evaluated.

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Foreword

In the spring of 1966 Wisconsin school systems cooperating with the Research and Development Center for Cognitive Learning of the University of Wisconsin at Madison were invited to participate in a two-year project in planned educational change. Eight systems became involved. All provided information through a questionnaire administered to their personnel in 1967 and again in 1969. Five systems established a system-wide structure described generically as a "Change-Agent Team." Three of the five involved their team members in training sessions designed to improve their competencies in interpersonal communicating and in problem-solving. These systems are the subjects of the case studies that are reported and analyzed here.

This project was facilitated by a variety of cooperative efforts. One was in the University itself as represented by Professor Hagstrom of the Department of Sociology in assuming the major responsibility for the research aspects. Professor Goodson was operationally responsible for the human development laboratory phase. Another dimension related the eight school systems to the project staff. Obviously, their cooperation, particularly that of the three systems that established change-agent teams and engaged in the training, was critical to execution of the project. The authors are greatly indebted to Joanne Soraya who served as documentarian, to the late Leo Hilfiker who coordinated the project and participated as a trainer, and to Jeanne Bitkers, a teacher in the Sheboygan, Wisconsin school system. Gratitude is expressed to our other colleagues in the University and to the teachers, administrators and board members who supported the cooperative undertaking.

Abstract

Change within a school system is often inhibited by a lack of systematic planning, inadequate communications, and a lack of coordination of efforts among persons who make up the school system. This paper deals with an approach to school system change —the establishment of a Change-Agent Team to plan for and manage specific changes and to facilitate and perpetuate an innovative climate. It presents case studies of change-agent teams in three Wisconsin school systems.

A model for change-agent team planning and action which includes diagnosing problems, planning strategies, transforming strategies into action, and evaluating results is described. Elements of Human Development Laboratory Training given to change-agent team members and others within the school systems are presented. These include descriptions of dialogue groups, focused exercises, and concepts used at the sessions as well as actual training designs. The activities of change-agent teams and their colleagues are related, and an evaluation of the interventions based on systematic data is included. The report concludes with recommendations and suggestions for future efforts.

I
The School System Approach

There are various approaches to change in a school system. A school building may become the target of change efforts as represented in the unitized school concept of the Wisconsin Research and Development Center, a teacher or administrator may be thought of as a change agent and be trained for such a role, or a planned change process may be initiated at the system level utilizing the largest conceivable organizational unit which contains a central office and operating schools as sub-components. The latter is the concept that the Planned Educational Change (PEC) staff offered to the cooperating systems.

The rationale of this approach has five elements: (1) it provides entry into a school system by an outside change-agent and research team as represented by the PEC staff; (2) it assumes the integrated character of a system embracing several components and avoids the problem of selecting one of the components for special treatment; (3) it maximizes the opportunities of inside personnel to determine priorities for change and to control the systematic development of subparts in accordance with such priorities; (4) it provides a greater chance for a school system to continue developmental processes after outside resources have been withdrawn, greater than if a miscellaneous group of teachers or administrators, or a building faculty represents the school system; and (5) it improves relationships among components and increases possibilities for each component to become a focus of attention. Prospects are then good that the improvement of interrelationships will lay the ground work for improving a component if and when it becomes the focus of attention.

This approach has at least two limitations. The starting point for change is far removed from the student for whom the system functions. Improved learning in the classroom represents the last event in a chain, if the improvement influence ever reaches there. There is also the danger of spreading efforts thinly over a large operation. This can lead to tangible results only after a long time in contrast to the visible results that may come immediately through more concentrated efforts. The favorable points of the rationale outweighed its limitations in the judgment of PEC staff and a system approach was initiated.

Change-Agent Teams

A change agent is a person or group who works toward bringing about change. Whether school systems are aware of it or not, agents for change function in all systems. Various persons in diverse roles from the superintendent to a kindergarten pupil have a potential to change themselves and to create change in others. Persons have differing power and resources to act as a change force in a school system. A crucial distinction between the rules noted above and a designated change agent is self-awareness. It was assumed by the PEC staff that change agents who are cognizant of their resources and mission and appropriately authorized by those with system-wide decision-making responsibility are more effective in planning and managing a change process than persons or groups who are not aware of their potential as effectors of change. The role of expectation is also an important condition. Those who are expected to be change agents are more likely to perform appropriately.

Role of the Change Agent

Historically, the role of the change agent was prescribed and largely limited to the superintendent of the school system, although more recently administration theorists have sought to unfreeze this one-office-one-man

authoritarian approach. A recent study of the superintendency has concluded that variables related to the superintendent are most important in facilitating the adoption of educational innovations (Carlson, 1964).

Data from the eight school system sample of the Wisconsin study indicate the important role the superintendent plays in influencing the determination of educational matters in general as well as the innovative process. To deny the superintendent his role as a change agent in the school system is unreal and unwise. But to look to him as the change agent leaves much to be desired. This implies that no one else on the staff has the interest and capabilities necessary to contribute innovatively and creatively to the system. While it is true that the superintendent and/or members of his staff should be included in the change-agent structure due to their key location in the decision-making apparatus and their broad view of the system, other personnel should also be included. Teachers, principals, and school board members should collaborate in change efforts utilizing their ideas and competencies, and requiring their linkage roles in the system. In the final analysis, the success of a change project will depend upon how well they and/or their peers plan and manage a process of change. This analysis led the PEC staff to the concept of a team designed for school system changing (Goodson and Hammes, 1968).

Criteria for Change-Agent Teams

Criteria (Goodson and Hammes, 1968) for change-agent team design were formulated as follows:

(1) Size. The size of a team should be large enough to utilize the potential of a variety of individuals representing a variety of roles in the system but small enough to be able to function as a face-to-face group. The ideal size would be from five to eight members.

(2) High Level Representation. The superintendent and/or his central office representatives should be members of the change-agent team. Such representation would ease legitimation problems of the team, provide the team with broad perspectives, and give a basis in reality for implementing its decisions.

(3) Vertical Role Representation. Principals, teachers, and school board members should be placed on change-agent teams. This would more readily insure divergent thinking in problem solving and provide necessary linkages in the system to aid innovative implementation.

These criteria along with a statement regarding the intended functions of a team were communicated to each superintendent of the schools considering a cooperative arrangement with the PEC staff of the Center. Two main functions were projected. One was that of assisting colleagues in developing and maintaining a climate in which change and innovation might flourish as a natural feature of system operations. The second was that of planning and managing specific changes which a system might need or desire.

Within these broad and pervasive functions more concrete and instrumental functions of the change-agent teams were described as follows: (1) To give attention to the school system as a whole and consider needed changes; (2) to plan and coordinate strategies at the system level for initiating and maintaining change processes; (3) to consult with central office colleagues and building faculty members concerning a particular change project and to consider the prevailing school system climate regarding needs and efforts in change and improvement, including resistances to change; (4) to become a resource to colleagues in planning and managing change activities.

Structure of Change-Agent Teams

Each of the three school systems comprising the case studies responded in a unique manner to the very general conditions of team design set forth by the PEC staff. System A created a team de novo of six (later expanded to eight), consisting of a school board member, Assistant Superintendent, Elementary and Junior High School principals, psychologist, and three teachers representing the Elementary, Junior, and Senior High School levels. System B modified a high school curriculum council composed of department chairmen. It was chaired by the system coordinator for instruction. An elementary school principal was added to make a group of 14 members. This structure was modified at a later date by the superintendent. System C used as its change-agent team an Improvement Committee that was already in existence and composed of the superintendent and two coordinators in addition to three principals, one in the high school and two in the elementary schools. This structure was later modified to include teachers and related teams in the building units. Each school system participated in three training sessions that were designed for team building purposes and which are briefly described in the following chapter.

II
Interventions by the Planned Education Change Staff

Functions of PEC

The Planned Education Change (PEC) staff served two functions: (1) that of observation and analysis of the change process; (2) that of a consultant, offering human relations training and specific resource help, but not deliberately influencing the systems toward any particular innovations or procedures. In a memorandum to colleagues, a PEC staff member elaborated upon these goals as follows: "I see the project as creating self-renewing systems. My goal is primarily action with little research. I see the change team as being primarily concerned with changing the processes and structures of the school system rather than being responsible for any particular change. I want to stimulate the teams to think about structure, interpersonal and organizational problems—what is blocking innovation and how to get through or over blocks. Our inputs, to bring this about, would be human relations training, feedback, information about appropriate innovations, and constant stimulation of the team by us."

The operational scheme became that of the PEC staff working as a change agent with the teams of the three systems and the three teams in turn functioning as change agents within their respective systems. These operations evolved into a collaborative process with a reciprocal relationship between the University and the school systems and, to some extent, between the systems. Interpersonal and problem-solving processes (Dialogue-Inquiry-Action Model) used by the PEC team served as a model for the school system change-agent team which subsequently involved its colleagues in the same processes. Thus there was a mirroring or simulation of processes thought essential to creating changes with continuous and reciprocal feedback between colleagues, the change-agent team, and the PEC staff.

Style of Intervention

The style of intervention used by the PEC staff rests upon two basic considerations: One is the essential matter of trust and respect and the other is the use of the therapeutic model. A school system has an integrity that requires it to be respected ethically and factually by any agency that would offer changes to it. Educational changing involves consideration of the necessarily particularized conditions of a school system, i.e., size, location, socioeconomic status, etc. The PEC staff tried to be sensitive to these indigenous qualities and to respect the realities and the personalities involved.

Leonard Duhl (1967) has described the therapeutic model by drawing a parallel between the patient-therapist relationship and the processes involved "in getting people to change" or in "building new institutions and new ways of coping with problems at this very moment." He states: "When a patient comes to a therapist reporting a current crisis, he usually asks for help in reaching a certain goal. If the therapist were a planner, he would probably sit down and outline five steps for the patient to take. If, however, the therapist simply gives a patient five steps to follow, nothing will happen. He must initially teach the patient the step-by-step process of assimilating new information, of reconceptualizing the world, of looking toward generalized goals, and of thinking about how certain immediate steps may be directed toward these generalized goals."

The therapeutic model emphasizes autoplastic development—growth from <u>within</u> the system. Development which characterizes the change process as originating <u>outside</u> the system and exerting influence from that position in modifying the inner workings of the system is described as alloplastic development.

A fuller view of the change process must consider that the autoplastic and the alloplastic are continuous and complimentary.[1] Both directions of development are involved in the therapeutic model but predominance is assigned to the autoplastic, as indicated by Daniel Bell's (1967) elaboration upon the therapeutic model in the following: "... the therapeutic model has surprising relevance in many problem-solving situations, as sophisticated business managers, for example, might attest. Its simple caution is not to accept the situation as given or defined by the client, but to keep open a range of generalized goals. Individuals may define a problem in terms of the difficulties they encounter in reaching a solution, only to find on analysis that the problem has been falsely put or that some other problem is actually at stake. By emphasizing self-scrutiny, feedback, and re-evaluation of means and goals, the model by its simple common sense warns against the premature closure of a definition or the foreshortening of perspective" (p. 702). In relating to the change agents of the school systems, the PEC staff used the therapeutic model giving a decided emphasis to an autoplastic development.

Goals of Human Development Laboratory Training

The PEC staff attempted to offer to the school systems training goals and designs consistent with the model described above. The training took the form of a Human Development Laboratory (originally named a Human Relations Workshop) that typically met for 16 hours on Friday and Saturday. Laboratory sessions were designed to help the participants develop their abilities in two areas: (1) interpersonal competencies that are involved in relating and communicating with others as well as understanding one's self and (2) competencies that are necessary for activating a problem-solving process (Dialogue-Inquiry-Action Model), including determination of priorities, the planning of strategies, the handling of data, and the use of external resources.

A goal of laboratory training is the acquisition of a sharpened diagnostic sensitivity. As an outcome, participants may become increasingly sensitive to key relationships among members of a group; to situations in which motivation of a member relates to his membership role; to ways in which group atmosphere influences group actions; to the nature of decision-making; and to points in group interaction where members can be helpful to others in reaching shared goals. A member may come to see more clearly events which happen in a small group and how these events may be constructively influenced by his efforts. This relevant change in participant functioning may be described as growth in diagnostic sensitivity.

Another goal of laboratory training is the growth of self-awareness. The member has the opportunity to see himself as he is seen by others; to privately examine his motivation in the light of data provided by others; to compare his perception of an event with the diversity or the unanimity with which others view the same event; to compare his perceptions of other participants over a period of time; to become aware of his feelings under group pressure; and to become more aware of the roles he takes in a group. Thus the participant becomes more fully aware of what is happening in a here-and-now context. This learning may be described as an awareness of self and others.

A member is also able to practice and experiment with new ways of intervening in his relationships with others. Because of the norm of experimentation and the condition of safety, the member is encouraged to try new roles and styles of personal intervention. For example, a participant who generally initiates group activities may choose to offer support and harmony to the group and give others the opportunity to lead. This gives him new insights into ways in which he can function with others to diagnose the reality, sense problems and needs, and plan strategies for making changes in situations which are problematical for group members. In contrast to the typical school or home situation, the laboratory may become for its members an opportunity for free exploration and learning.

Another important goal of laboratory training is to afford an opportunity for participants to reassess and to modify appropriately their deep-seated dispositions and stereotypes toward groups and people. Attitudes which strongly affect human relations and the solution of problems and which frequently need examination and more understanding by group members have to do with such phenomena as:

Aggression	Hostility
Anxiety	Human Intimacy
Authority	Leadership
Communication failure and success	Personal Autonomy
Empathy	Rationality
Conflict	Resistance
Consensus	Spontaneity
Freedom	Sexuality
	Submissiveness

Viewed through stereotypes the human situation tends to be static, destructive, and fore-

boding. When stereotypes have been transformed into experience-validated concepts—for example, aggression-as-bad being changed into a necessary component (autonomy and spontaneity) of human learning—laboratory participation can bring a fresh perspective and more flexibility to human transactions and a new potential for constructive behavior. This transformation is illustrated by what a teacher reported after a training session: "The world including the teachers and pupils in my school look different to me. I can now count on them to be helpful for they empathize with me."

A laboratory training design is a set of related dialogue-inquiry-action sequences that participants and trainers activate and maintain during the course of a laboratory. Three elements are generally incorporated: (1) a basic group variously named "encounter," "sensitivity training," "T-group," or, as in the PEC experience, a "Dialogue" group (D); (2) focused or structured exercises; and (3) information-giving sessions in which models, theory, or knowledge are presented as economically as possible with the occasion referred to as a lecturette.

As indicated above, the human development laboratory is designed to help participants enhance and further develop two competencies—interpersonal and problem-solving. The discrete competencies (or components thereof) are always related in the functioning of a person and are conceptually brought together in the trilogy symbol used above: Dialogue-Inquiry-Action. A training sequence that influences both competencies may consist of two complementary phases with an interlude between Session I and Session II of approximately six weeks. This sequence is portrayed in Figure 1.

The design emphasizing interpersonal competencies is always antecedent to the second design concerned with problem-solving.

In terms of the outcome of laboratory training, a functional integration is sought so that the participant can use interpersonal and problem-solving competencies appropriately in dealing with a situation. One trainee described his experience with laboratory training and applied it to a school situation. He said: "I can now better sense when I should speak, when I should listen, when I should state alternatives or raise questions, and when I should press for action."

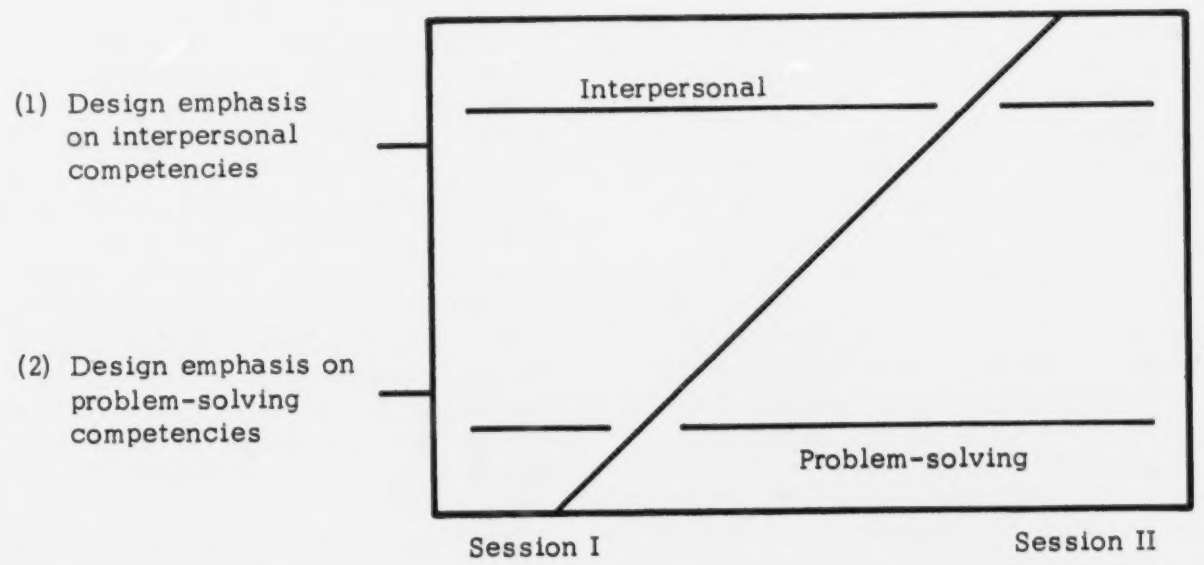

Figure 1

Concentration and Learning of Participant in Training Laboratory

The D-group provides a learning opportunity that is experienced intensely by participants. It becomes appropriate, if not a matter of felt necessity, for members of a training group to disclose themselves through overt actions and to receive feedback from other members. Senses and feelings become very much involved, highlighting the learning process that is proceeding for each member. The course of growth is the reversal of other methods, such as reading or lecture-listening, in that experience precedes conceptualization. Words and symbols become attached to events and summarize segments of experience. The use of symbols enriched by meaningful experience enables members to communicate, often at an abstract level, and reflect upon experiences in the training group. But when learning is taking place, the emphasis is upon the here-and-now and not upon something then-and-there which may be recognized and abstractly described.

Another important aspect of the training group is the behavior of the trainer. As an authority, an assumption made by members of the group, the trainer violates their ordinary expectations. He does not provide external structure; rather, members generate structure through attempts to influence one another on the basis of the needs and concepts they bring to the situation.

Three kinds of learning are available to a member of a training group: (1) He learns about himself, his own personal functioning; (2) He learns concepts regarding human relations as a field of knowledge, as well as the diagnostic and intervention competencies necessary for applying the concepts to concrete human situations; (3) He learns of the properties of groups and the dynamic character of the interactions among members.

When convened in a laboratory setting, members undergo the process of becoming a group in slow motion. Thus the stages of group development become clearly visible. An early and dramatic stage is represented by efforts of members to resolve the problem of authority—which member or members are to be granted the right to influence others in clarifying direction and goals and in establishing decision-making procedures. A latter stage of development involves the degree of closeness which members can extend to one another in sharing ideas and feelings. Other stages, less dramatic but just as important for the group, are made evident in the process of group development.

Members can observe almost minute-to-minute changes in the group and talk about them. The origin and history of the group thereby becomes clear. By sharing observations and reporting their feelings, members can gain insight into group interaction. The meaning of the experience may be enhanced through collecting and analyzing information about each member and about movements of the group. (See D group exercise on pages 10 and 11 for facilitating such activity.) Meaning is enriched through sharing perceptions regarding attempts of members to influence one another.

The norms of trust and inquiry become important to the life of the group. For a group of trainees to realize their maximum potential, the culture of the group has to be transformed not only by the norm of trust, but also by the norm of inquiry. Then open communication among members and the full use of member resources of problem-solving become established. The norms of trust and inquiry need to be regenerated periodically and cannot be counted on to perseverate from minute-to-minute or from hour-to-hour in the life of a group. The successful efforts of group members to generate trust and inquiry contribute to group development and the richness of learning for the members. When evaluating a laboratory session, one participant wrote: "Unless there is sincerity and trust, basic problems cannot be solved. These were generated during the session—we are now ready to begin."

In the early stages of the life of a training group, members frequently feel that the processes they are undergoing are somehow special and artificial and are influenced by the special conditions under which the group meets and the "manipulative" behavior of the trainer. In time, however, members come to understand that these processes are somehow a part of all group life and that the similarities between the training group and the work organization of the school or the life of a family are greater than the differences. The phenomena that occur in the training group and those that occur in other groups are of the same order. The ideas and principles for understanding and acting in the training group are more similar than dissimilar to those than can be applied in other groups outside the laboratory. Unless the participant in training has strong needs to induce barriers to trust and inquiry in his interaction with others, transfer is easily achieved.

A Model for Planning and Action

In planning a laboratory design the PEC staff used the dialogue-inquiry-action model[2] which it recommended to change-agent teams

as a model for their behavior and as represented in Figures 2 and 3. Certain characteristics of the model need to be explained. An examination of Figure 2 shows that it is cyclical and sequential in nature. The process starts in the reality of the school and proceeds step-by-step, box-by-box, and returns to the reality. The model relates the mission of the school to its realities and shows connecting functions, as represented by labels placed in

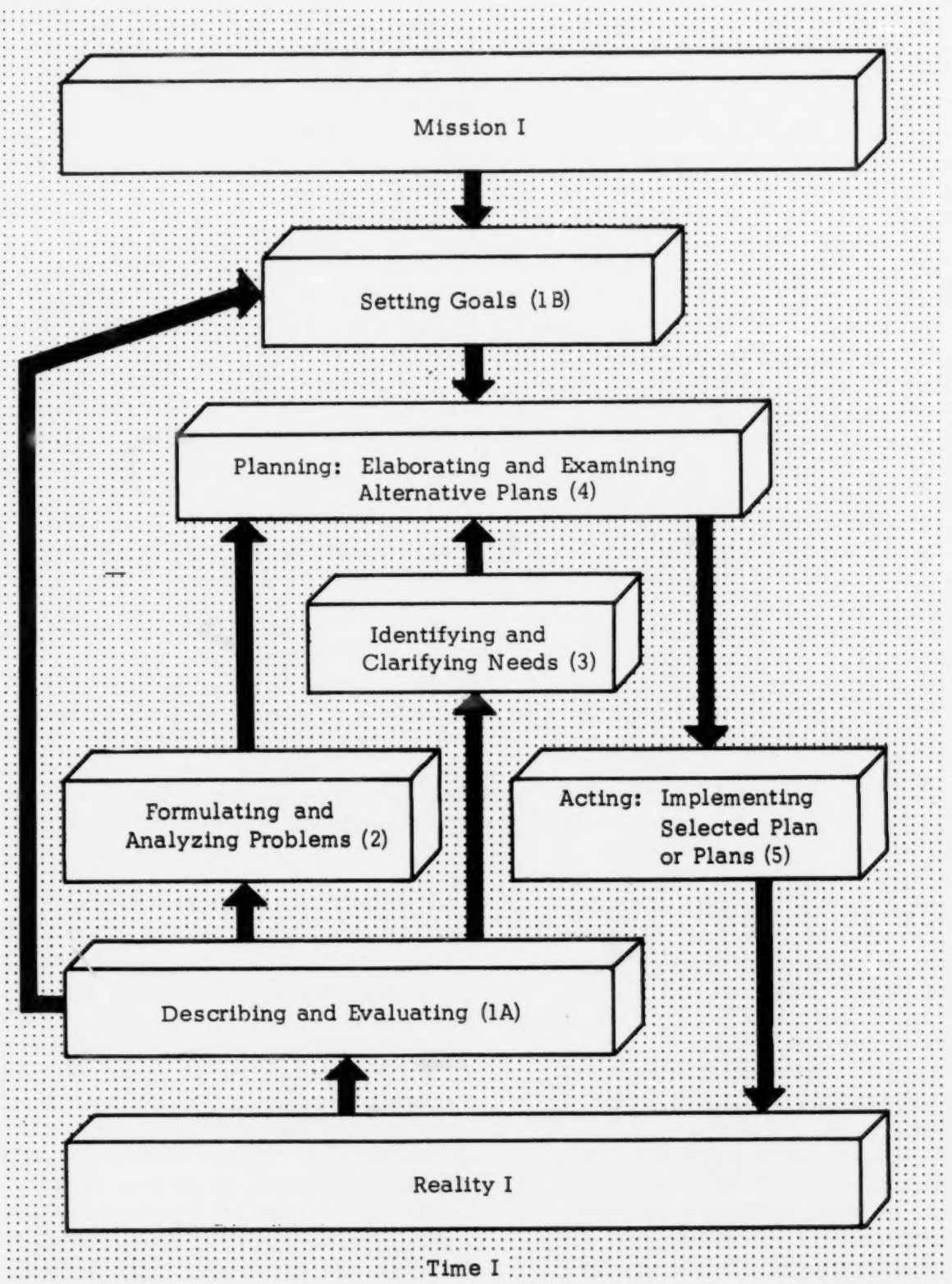

Figure 2

Dialogue-Inquiry-Action Model

the boxes. These are the mediating functions, according to the experiences gained in the PEC project, that a professional staff must perform and take responsibility for if a school is to improve.

The reality of a school is multiple. Parent expectations, interpersonal norms of the professional staff, behavior and goals of students, structures of the school, teacher and administrator competence, school climate and other conditions represent segments of reality that may need attention. Once a staff in a laboratory focuses attention upon a particular segment, both careful description and evaluation are needed. Dialogue and shared inquiry among members of a staff facilitate the description and evaluation of reality. The difference between describing reality and evaluating it is intricate. The latter involves the use of a value or a concept of "desirable condition" by which the problem-solver concludes that some aspect of reality needs to be changed.

The describing and evaluating of reality (phase 1A) leads to formulating and analyzing problems (2) and identifying and clarifying needs (3). Also, function 1A leads to setting goals (1B) in accordance with reality and consistent with the mission of the school (broad functions and responsibilities legitimized by societal representatives).

Planning (4): elaborating and examining alternative plans is a crucial component of the model. This function is related to the evaluation of reality through problems-to-be-solved and needs-to-be-satisfied as determined by participants in a laboratory who are involved in a school situation. It is the planning phase that innovations from R and D laboratories (and other sources) become relevant as alternatives to be examined in light of goals, problems and needs. The last phase (5) is acting in which selected plan or plans are implemented and is of great importance in determining the success or failure of the change process.

Another important feature of the model is that a white box containing a function is a figure upon a ground. The Gestalt or figure-ground is represented by a white box upon a finely dotted background. The ground is a primary dialogue-inquiry-action process. It is a basic process from which specific secondary functions emerge. Dialogue is interaction among professional colleagues (including students and parents)—a teacher talking to a principal or a group discussion among members of a change-agent team. It is from dialogue, facilitated by the interpersonal competencies of participants, that the specific functions contained in the labeled boxes are generated and given form and meaning. Dialogue activates inquiry. It enables group members to raise and answer questions and to state and consider alternatives regarding a specific function. Dialogue-inquiry terminates in a resolution—a decision or settlement so that motivation to go on can carry participants (change-agent team members, for instance) to the next function. The basic ground of dialogue-inquiry-action: (1) enlivens and nurtures a specific function giving it an organic quality and lending an artistry to the process and it does not degenerate into the "grinding-out of a machine," nor lose its life-like aspects; and (2) surrounds the consideration of each function and suffuses its creation with dialogue and inquiry, finally urging group members to reach a resolution point and to move on. Individuals in a professional staff solve problems differently. This model allows for different styles and approaches to problem-solving.

This basic ground may be conceptualized as the normative and motivational conditions of a school system. Previous studies of PEC project (Hilfiker, 1969) demonstrate a relationship between norms of trust, openness, adaptability, problem-solving adequacy, and the outcome of innovativeness. The intensity of these norms influence the behavior of participants in regard to the degree to which they participate in dialogue-inquiry-action processes. The norms, therefore, determine the dynamic characteristics of a school. Intensely positive feelings shared by participants about such norms enliven and nurture a specific function as indicated above. At an opposite expreme "hopeless" or "don't care" attitudes by teachers and administrators will not facilitate but rather depresses dialogue-inquiry-action.

Figure 3 represents Reality I at Time I and Reality II at Time II. In the second cycle with the expectation of an improvement in the process, the prior functions of describing and evaluating reality, acting, etc., need to be described and evaluated along with Reality II. If Reality II is the same in most respects as Reality I, then no change or improvement has been realized through the process. As differences between Reality I and Reality II are documented, the actor knows that changes have taken place. Whether or not changes represent improvements in the reality is obviously dependent upon evaluating—the deliberate process of examining reality in light of values.

Initially, the PEC staff carried the major responsibilities for designing and implementing Human Development laboratories. Later change-agent teams assumed an increasing responsibility in setting goals, describing and

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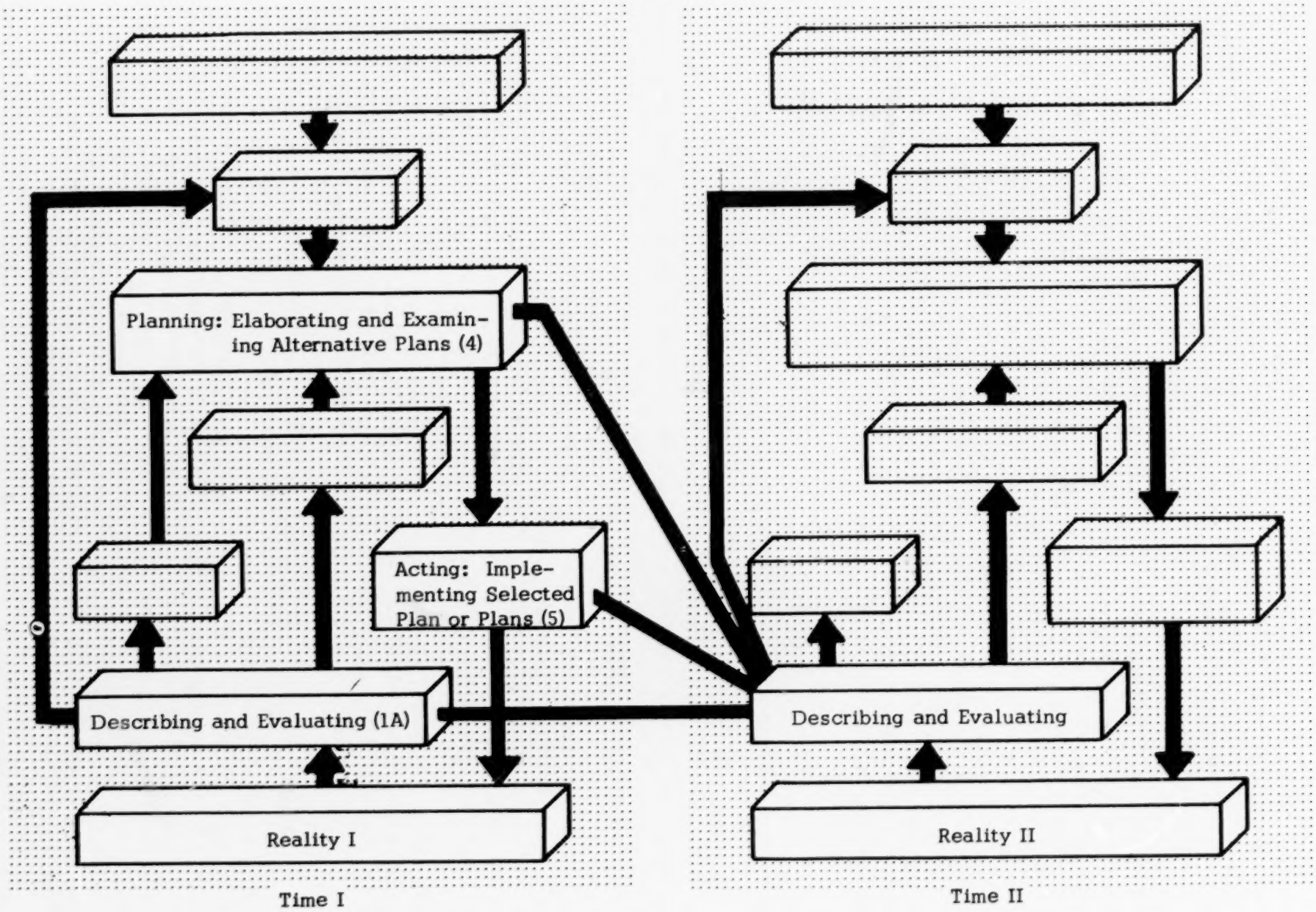


Figure 3
Dialogue-Inquiry-Action Model

diagnosing their school realities, formulating problems-to-be-solved, and identifying needs-to-be-satisfied through laboratory experiences. Change-agent team members shared with the PEC staff in the dialogue-inquiry-action process that provided a ground for each of the steps portrayed as figures on the ground (white boxes against finely dotted background) in Figures 2 and 3 of the model.

PEC and change-agent teams used the model described above in guiding their respective activities and in planning their cooperative activities. Thus, the model provided a reciprocal mirroring between the PEC staff problem-solving processes and those that change agents needed to institutionalize in their systems as robust processes of dialogue, inquiry, and action resolution. The PEC also needed continuous evaluation and feedback to reinforce its efforts to clarify and enhance its problem-solving processes, for it too faced the task of upgrading its performance.

Elements of Laboratory Training

Three elements were generally incorporated in laboratory designs. They included the Dialogue Groups described above, Focused or Structured Exercises, and Information-giving sessions. Examples of each will be given below.

Basic to Human Relations Laboratory Training was the formation of Dialogue (D) Groups. These are small subgroups of 9 to 12 members who are free to discuss any subject, including interpersonal problems, and give feedback to others concerning reactions and feelings. Exercises to facilitate interpersonal inquiry and self-disclosure for learning used with D Group members are included here:

D Groups

SELF-DESCRIPTION AND PREDICTION. Based on first impressions of people in the D Group and on their own experiences in groups, participants are asked to make predictions of their own behavior by responding to the following:

> Select the person whom you feel will act most differently from you.
>
> List words or phrases describing your predictions as to how he will behave.
>
> List words or phrases which describe your predictions as to how you will behave.

GROUP INTERACTION PREDICTIONS. At the onset of the D Group activities members are asked to predict who will be high and low participators and who will be high- and low-influence members of the group. They are also asked who they feel will try to create a congenial atmosphere, who will create an atmosphere of disagreement, and who will try to create an atmosphere of calm and nonemotion within the D Group.

MEMBERSHIP EXERCISE. Participants are asked to look for certain behaviors during the D Group discussion and to respond to the following questions:

> List members who tend to support one another.
>
> List members who tend to oppose one another.
>
> What members of the group seem to be most "in"?
>
> What members of the group seem most "out"?
>
> Under what conditions do people come into and move out of the group?

REACTION SCALE. During the D Group discussion participants are asked to respond to questions which include: To what extent are your opinions being solicited by the group? How satisfied do you feel with your participation in moving toward a decision? How much frustration do you feel as the work on the decision goes on? How good is the decision your group is making? Answers can vary in degree from completely satisfied to completely dissatisfied.

POSITIVE AND NEGATIVE ELEMENTS IN MY SELF IMAGE. All participants are given lists of 220 self-descriptive adjectives which include words such as: aggressive, caring, confident, dependable, lively, nervous, over-emotional, powerful, rationalizing, rigid, serious, strong, vulnerable, and zestful. From this list they choose three positive traits which they have and would like to retain and three negative traits which they also possess and which they would like to do away with. After

they have completed this by themselves each member selects a partner. The two exchange papers and together discuss the lists and the reasons for their choices. All participants are then reassembled and each person reports on his partner's lists. In this way, an individual reveals himself to one other person who then edits the findings and reports back to the group. Members of the group might ask questions, make comments, give suggestions, or agree or disagree with an individual's perceptions of himself.

Focused Exercises

Focused or structured exercises were also incorporated into Laboratory training sessions. Five of these exercises are included here:

LISTENING EXERCISE. Participants are grouped in triads and given 8-10 topics for discussion. (Topics might include school-related concerns such as: Today's students are given too much freedom; or More emphasis should be placed on Basic Skills in the Primary Grades.) In each triad one member acts as the mediator or evaluator and the other two discuss the topics. Roles are reversed after approximately 5 to 7 minutes of dialogue so each member is given the opportunity to be a participant and a mediator. The discussion is unstructured. Before a member may speak, however, he must summarize (in his own words) remarks made by the previous speaker, making it necessary for the participant to listen and comprehend as well as to speak.

NASA EXERCISE. Members are grouped in clusters of 6 to 10 people and asked to complete an individual worksheet determining priorities in the selection of items for survival on the moon. After individual sheets are completed, clusters meet together to determine priorities of their group. Consensus must be reached by members of the group to rank the items (Pfeiffer & Jones, 1969).

BROKEN SQUARE EXERCISE. Participants are divided into groups of 5. Each member is given an envelope containing pieces of cardboard for forming squares. The group task is to form 5 squares of equal size. During the exercise no member may speak. No member may ask another member for a card or in any way signal another member and ask for a card. Participants may, however, give cards to other members (Pfeiffer & Jones, 1969).

CONFLICT AND COLLABORATION EXERCISE. Participants are divided into two groups and asked to determine solutions to a single problem. [The problem should be such that the groups will develop significantly different solutions.] The groups then choose representatives to describe their views and work out a common solution. Both groups are present when the discussion occurs but are on the opposite sides of a negotiations table. Each group can communicate with its representative by way of written messages. Intergroup competition generally develops quickly. If representatives are unable to agree, problem-solving suggestions are made to give practice in collaboration. The exercise points out the effects of conflict and of collaboration in resolving differences (Harrison, 1967).

TRAINING SESSION EVALUATION. Participants of training sessions respond to various evaluative instruments at the completion of the laboratory. Questions asked of group members include:

> During the session my predominant feeling was one of being _____.
>
> Regarding this session, I liked ____ _____.
>
> As a result of this session, my responsibility is _____.
>
> Of most value to me during the session was _____.

Presentation of Concepts

Cognitive inputs were used by the PEC staff in the laboratory as needed. The presentations were designed to give the participants a language and concepts for understanding what they were experiencing. The basic rationale of laboratory training is to facilitate for the participant a better integration between his emotional experiences, his behavior or action, and his referential or cognitive processes. The following systems of ideas were used most frequently, either as a summarizing of an experience or for initiating a training experience, and are presented in abbreviated forms:

SELF DISCLOSURE AND FEEDBACK. (Johari Window) A process of learning for a member of a D Group is self-disclosure and feedback. This is probably the initial aspect of the training

experience. As a member discloses himself by self-references (feelings, self-concepts, etc.) he initiates a positive gain in self-awareness and effective participation. The consummation of the learning process comes through feedback from other group members (their responses to acts of self-referencing and disclosing). The process is diagrammed in Figure 4.

	Known to Self	Not Known to Self
Known to Others	Area of free activity - person uninhibited in public I	Blind area - person's behavior is beyond self-awareness but observed by others II
Not Known to Others	Private self-awareness area not readily shared with others III	Unexplored potential for growth available through fantasy exploration and other special efforts IV

Figure 4

Self-Disclosure and Feedback

Through acts of self-disclosure Area I becomes larger and Area II becomes smaller (see Figure 5).

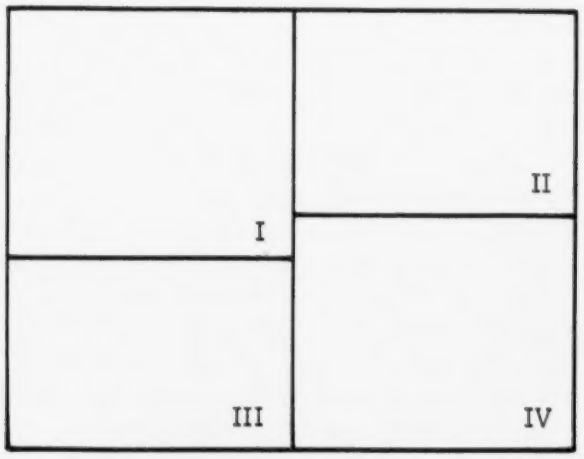


Figure 5
Self-Disclosure

Through acts of feedback from others that are accepted and assimilated by a person, Area I expands while Area II contracts (see Figure 6).

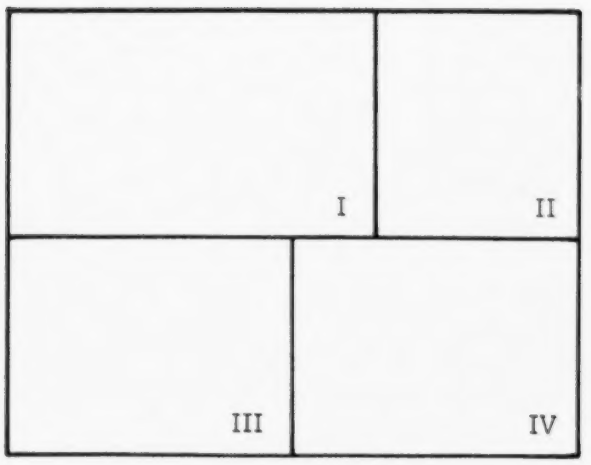


Figure 6

Feedback

Self-disclosure and feedback in combination consummate the learning sequence to maximize self-awareness (see Figure 7). Area I expands in two directions with a contraction of Areas II and III.

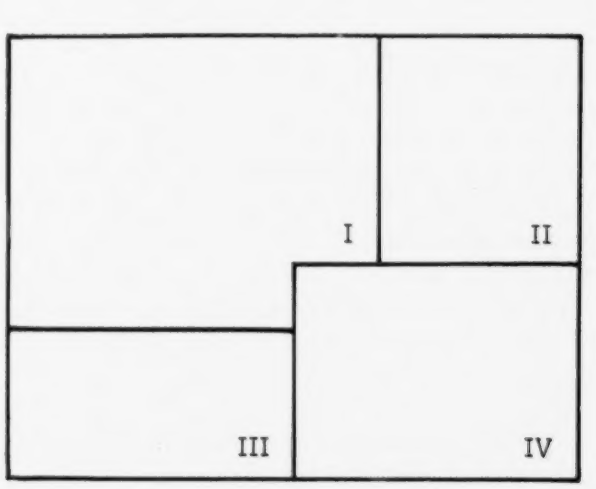


Figure 7

Self-Disclosure and Feedback

As illustrated in Figure 7, Area I may expand, facilitating more personal functioning, through encroaching upon the encompassing Areas II and III. Area I may also expand into Area IV through activities of dream interpretation, fantasy explorations and similar activities. In accordance with the theory of becoming a fully functioning person Area I geometrically approaches the limits of the basic large square.

Criteria of Effective Feedback

During the initial stages and in later encounters, members of a D Group are likely to experience anxiety and feelings of ill-ease. Throughout the human career of each member, anxiety is to be expected and a person can learn to understand and cope constructively with it. As we have seen in the Self-disclosure and feedback abstract, feedback is an important condition of learning. It needs to be done as competently as possible. This means, among other things, that the anxiety-level of the receiving person is kept low, for anxiety contaminates and attenuates such critical processes as self-awareness, sensory acuity and discrimination, dialogue and inquiry—the very processes that the D Group is designed to enhance in the participant. Attention, therefore, needs to be given to the characteristics of constructive feedback as follows:

1. It is <u>specific</u> and not general;
2. It is <u>tentative</u> and not dogmatic;
3. It <u>informs</u> and does not order;
4. It <u>describes behavior</u> and one's <u>perception</u> of the behavior and does not generalize or categorize as good or bad;
5. It <u>describes</u> one's own feelings, underscoring the I-Thou relationship and avoiding the thingness connotation;
6. It is <u>not name calling</u>;
7. It does not <u>accuse</u> and <u>impugn undesirable motives</u> to the recipient.

Three Personal Styles and Social Interaction

It is postulated that there are three functional modalities that enable a person to perform a role in a social system—fighting, helping, and thinking. One modality may tend to dominate over the other two—thus Person 1 may tend to be a fighter; Person 2 a helper to others, while a third person may function predominantly as a thinker. These differences that give rise to personal styles may be illustrated as in Figure 8.

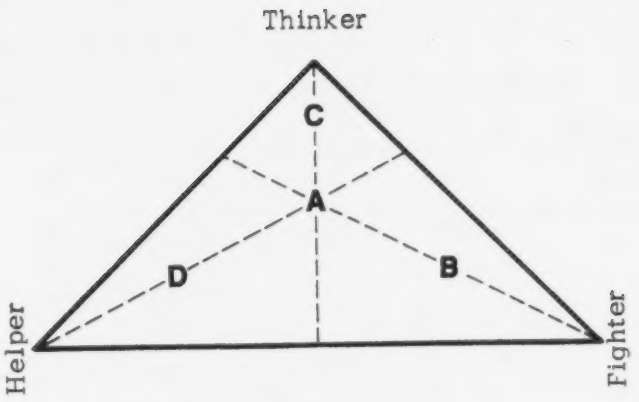


Figure 8

Three Different Modalities of Human Functioning

A person in which the modalities are equally balanced would be at Position A, the fighter at B, thinker at C, and the helper at D. These modalities are related to certain properties as indicated in Table 1.

These three modalities or styles are all useful and contribute to group life and the culture of a school.

Members of a training group are able to divide themselves into the three categories through a non-verbal exercise. A person's self-perceptions may be challenged by the perceptions of others, inviting exploration of personal style and experimentation in a human development laboratory with the modalities in which the person does not ordinarily function. Triads for various training functions such as consultation-training that involves the roles of a consultant, consultee, and process observer may be composed of trainees differently categorized (one objective thinker, one tough battler and one friendly helper).

Dialogue-Inquiry-Action (Problem-Solving Model)

The content for this presentation is described on pages 6 - 10. The essential points are contained in Figures 1 and 2 and need elaboration. The model was used as orientation to problem-solving sessions. The experience of PEC staff indicates that the orientation to a sequential problem-solving process should be brief. The model may also be used effectively as a guide at certain junctures of the sequence, for example, when a group is moving from selecting a plan of action among alternatives to the implementation of the

Table 1

Modalities Related to Strategic Variables

	Fighter	Helper	Thinker
Emotions	(accepts aggression) rejects affection	accepts affection (rejects aggression)	rejects more than accepts both
Self-Ideal	To dominate	To be accepted	To be correct
Influences others by	Ordering	Understanding and friendship	Data and correct inference
Judges others by	Power	Warmth	Thinking Ability
Value to (school organization)	Initiates, disciplines	Supports and harmonizes	Solves problems
Dislikes	Being soft	Conflict	Emotions and Irrationality
Needs	Warmth and objectivity	Integrity and firmness	Awareness of human beings

plan. Its most effective use, however, is in conceptualizing the process and inviting dialogue-inquiry regarding the process itself after participants have experienced the various steps as indicated in the white boxes (Figures 1 and 2).

Erikson's Eight Stages of the Life Cycle and Teacher Influence

Erikson's (1963) eight stages are presented indicating the virtuous outcome when the crisis resolution at each stage results in a "favorable ratio" (see table 2). Some speculative generalizations are useful in interpreting the ideas as follows:

1. Each stage may be redone in the recycling of the human career; for example, when an older person again works through the problem of "trust vs. mistrust" with a professional colleague.

2. Either growth that enables the person to "develop fully" in a stage and become "fully ready" for the next stage or developmental arrestation in some degree may occur at any stage. Growth or arrestation is determined by the educative forces in the person's environment.

3. Each stage has a potential of social contagion from one person to another through social contact. Mistrust breeds mistrust; for example, love breeds love, competence breeds competence, and stagnation breeds stagnation.

Members of the training groups participated in the following steps in an exercise after the lecturette:

1. Review the experiences you have had with teachers. Select one experience that you recall with pleasure and a sense of worthwhileness for your growth. Select another experience which you recall as being either frustrating or useless for your growth.

2. Describe the teacher who had a good influence upon you. Indicate critical interpersonal incidents you experienced.

3. Describe a teacher who had a frustrating or useless influence upon your growth. Indicate critical interpersonal incidents that happened.

4. In terms of Erikson's stages of development, in which development

Table 2

Erikson's Life Cycle

Stages	Character of Developmental Crisis	Outcome in Terms of "Virtuous" Personal Functioning
1. Oral-sensory	Trust vs. Mistrust	Hope
2. Muscular-anal	Autonomy vs. Shame and Doubt	Will power
3. Locomotor-genital	Initiative vs. Guilt	Purpose
4. Latency	Industry vs. Inferiority	Competence
5. Adolescent	Identity vs. Role Diffusion	Fidelity
6. Young Adult	Intimacy vs. Isolation	Love
7. Adulthood	Generativity vs. Stagnation	Care
8. Maturity	Ego Integrity vs. Despair	Wisdom

crisis were you involved with the positive teacher?

5. Which development crisis with the negative teacher?

6. Which development or crisis are you working on at the present? What are you doing about your own self-development?

In a dyad with a partner, mutually selected as nearly as possible, the participant shares his self-observations with another in sufficient depth of understanding that each can present the other's experiences to a group of six in the presence of his partner.

Jones' Propositions Regarding Creative Learning in Contrast with Anxiety

This presentation is designed to conceptualize various learning conditions that a participant may experience in a laboratory including the fortunate outcome of creative learning as well as the unfortunate outcome of anxiety. Jones (1968) states two equations that are useful in conceptualizing laboratory training and in understanding human processes that are also involved in the school. He postulates that learning starts with imagination and the outcome (whether creative learning or anxiety) of the process is determined by other factors, as indicated in Figure 9.

Laboratory learning and school instruction need to provide for community—the community of feelings and ideas or dialogue among persons. Mastery of the situation in which the person finds himself as well as self-control are also important conditions. When community degenerates into a condition of human aloneness and mastery gives way to a sense of helplessness, the equation does not yield creative learning. Instead it produces anxiety which may be thought of as being in the professional domain of Psychotherapy and irrelevant to instruction in the school and human development laboratory training. The question is: How can educators be sensitive to aloneness and helplessness in one another and in students and convert the negative conditions into community and mastery so that improved competence in interpersonal relations and problem-solving is acquired? Only teachers and administrators who are competent interpersonally and can activate problem-solving processes can answer this question.

One other observation is useful. Jones' two propositions both are premised in imagination. There is a feedback as represented by the dotted line from anxiety to imagination in the one and from creative learning to imagination in the other. The constructive and humane characteristics of imagination will be reinforced and enhanced by creative learning and the human organization will be better for each instance in creative learning. The destructive and inhumane qualities that may be present in imagination will be reinforced and intensified through feedback from anxiety and the human organization will further deteriorate through a downward vicious circle.

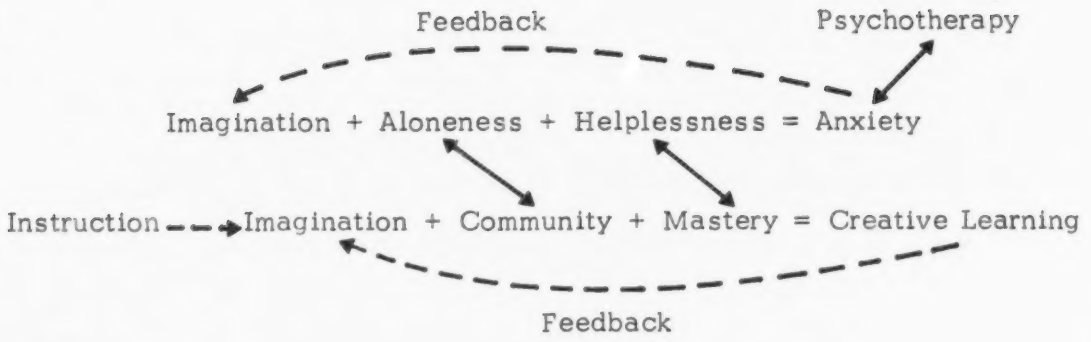


Figure 9

Jones' Formula Regarding Anxiety and Creativity

Data Feedback and Analysis

Another form of cognitive input in the laboratory was data feedback and analysis. A sample of data feedback provided by the PEC staff is included here. Some differences in the "climate" of the two high schools are suggested in terms of questionnaire responses by eleventh graders.

1. Almost half the boys at School A have been sent out of class by a teacher more than once, as against only 11 percent of those at School B.

2. A much larger proportion of the boys at School A than at School B have skipped school with a gang of kids more than once.

3. Boys as well as girls at School B are more likely to rank being "bright, well-informed, and interesting" as very important for themselves than boys and girls at School A.

4. Girls at School B are more likely to place great importance on family background than those at School A.

In sum, these few items suggest that the "student culture" at School B is more favorable to learning and academic matters than the "student culture" at School A. What can we do about it? These climates tend to be self-perpetuating; to some extent they are based on the neighborhoods from which the students come, to some extent new students acquire values from old students. What can the school staff do to change the climate in School A for the better?

III
Activities of the Change-Agent Team and Colleagues

Change-Agent Team Training Sessions

Each of the three Change-Agent Teams working with the PEC Staff had a two-fold function which included providing a climate for change within the school system, and determining, planning, and managing specific changes. After the formation of the teams, work began with a series of training sessions which all three teams attended jointly. The first of these meetings was held in Spring 1967. The major goal of this session, planned by the PEC Staff, was the improvement of the functioning of Change-Agent Teams through Human Relations Training. Participants came to the session prepared for a typical in-service or conference experience and expected lectures concerning team functioning and opportunities to meet and work on their problems. When this did not occur many participants became confused and uncomfortable. A member of one of the Change-Agent Teams evaluated the session as follows: "After the initial shock of being exposed to this type of training, I feel much can be accomplished." Another stated: "If I had this to do over, I would have stayed home." While a third participant responded: "It was a new experience for me to explore this technique. I was amazed at the evolving structure of the various groups, and the patterns that I observed and even the evident change in some of the personalities. I believe that I have profited from this experience and trust that I will be able to carry over what I have learned into all my future meetings." Even 2 years later when members of Change-Agent Teams were planning Human Relations Laboratories for others they sometimes referred to the confusion and distrust that was felt when they first participated in these sessions.

Most of the initial Human Relations Laboratories in which members of the Change-Agent Teams participated combined process and task orientations, although one or the other usually predominated. For example, one of the initial sessions began with members of all three system teams meeting as D Groups. These are unstructured groups in which members are free to discuss any subject they choose. They usually work on interpersonal problems and give feedback to each other concerning reactions. Following this, members of the separate teams met together in a new D Group situation across system teams. After some time they stopped to analyze what they had learned about each other and how it affected their work as a team. Later in the day each team worked together on a task while the other teams watched to see how the group functioned and made suggestions as to how the team could work together more effectively. Finally there was a time when each team worked on their problem only, using a force field analysis, a problem-solving technique wherein forces, both positive and negative, affecting the task are diagrammed and weighted. In this Laboratory Training Session both the problem (the way the team worked together) and the task (the problem they worked on) were attended to.

The training design for one of these laboratories is included.

Change-Agent Teams

Participants were members of Change-Agent Teams from Systems A, B, and C.

Goals

1. Each member will identify self-learning goals in relation to improving team functioning.
2. Each team will evaluate itself in relation to group maturity criteria.

3. Each group will outline concrete action-steps for problem-solving.

4. Each team will consider data feedback in relation to its problem-solving efforts.

Training Design

Morning	Afternoon	Evening
1. Identification of self-learning goals	4. Group Maturity Assessment	Diagnosis and discussion of Group Maturity Assessment
2. Triad Discussion Theory session on Personal Styles and Group Process		
3. Personal Styles and Group Process Triad and Change-Agent Team Discussions		

Morning	Afternoon
5. Resource Utilization	Data Feedback (by PEC Staff)
6. Change-Agent Team Planning	Analysis of Data Postmeeting Reactions

Activities

IDENTIFICATION OF SELF-LEARNING GOALS. Each member of the group was asked to complete the following:

1. Describe the changes you would like to create or the behavior you would like to experiment with.

2. Describe two members of your Change-Agent Team who come the closest to each change which you would like to create or behavior you would like to experiment with.

TRIAD DISCUSSION. Using the self-learning goals developed by participants as a basis for discussion, each member of the triad performed on a rotation basis in three roles: (1) consultantee, (2) consultant, and (3) observer and analyzer—stimulator of process.

PERSONAL STYLES AND GROUP PROCESS EXERCISE. Each individual determined his personality type: tough battler, friendly helper, or objective thinker. Triad discussions and Change-Agent Team discussions concerning the individual's perception of himself and his relation to the three personality types, and the triad members or group's perception of the individual followed.

GROUP MATURITY ASSESSMENT. Each Change-Agent Team was assigned one of three topics for discussion which included innovations, educational goals, and local problems. A rating form was filled out by two teams who observed the third team. The observed team did a final self-rating after the observation. Several questions included on the Rating Scale are listed below.

1. Do most people in the group feel free to participate in the discussion?

2. Does the group find and use its "experts"?

3. Do group members seem to work well together?

4. Does the group seem to care about the personal feelings of its separate members?

5. Do group members listen to what other members say?

6. Does the group sense the needs and styles of the members?

RESOURCE UTILIZATION EXERCISE. The NASA exercise was used to point out the need for utilizing all available resources in the decision-making process.

CHANGE-AGENT TEAM PLANNING. Criteria established by the PEC Staff for Change-Agent Team planning included:

1. Evaluate your team's progress.
2. Outline concrete action steps.

3. Place action steps in sequence.
4. Plan a timetable for the completion of each step.

Goals of additional laboratory training sessions planned for Change-Agent Team members included: Relating sensitivity training to the functioning of Change-Agent Teams as back home groups, learning and utilizing problem-solving techniques, and providing additional information regarding system problems through the use of data feedback. By the fourth session in which Change-Agent Teams participated, members had accepted and become enthusiastic about the laboratories and the results of training.

During this period Change-Agent Teams were asked to decide on an innovation which they would introduce into their respective school systems. The PEC Staff provided criteria for choosing an innovation as follows:

1. Has your Change-Agent Team developed an operational definition of an innovation or change?

2. Has your Change-Agent Team developed a priority of changes or innovations which you feel are relevant and desirable locally?

3. Which of the Innovation-Changes can be processed through your Change-Agent Team?

4. What levels of decision-making will need to be utilized in processing the Innovation-Change: teachers, administrators, school board members, or the electorate?

5. What limiting variables need to be considered before the final selection of the Innovation-Change? Variables in this category might include some of the following:

   a. Time necessary to establish the Innovation-Change.
   b. Human resource: time and energy needed.
   c. Projected cost of the Innovation-Change.
   d. System "climate" for change.
   e. Complexity of the Innovation-Change.
   f. Degree to which system must adjust its existing patterns, norms, etc.

Using these criteria, System A chose to work on the introduction of Independent Study, System B selected Modular Scheduling and Independent Study, and System C began the formulation of a Philosophy of Education for the system.

The Change-Agent Teams also met regularly and independent of PEC in their respective school systems. Each of their meetings was tape-recorded and the tapes were analyzed by members of the PEC Staff. Through this analysis it was possible to see effects of Human Relations Laboratory Training and to note the progress of each group. Although each Change-Agent Team was given identical Laboratory experiences, participated in sessions involving Human Relations and Problem-Solving areas, and was given the same criteria for selecting an innovation or change to be introduced in their respective systems, it can be seen that each team had diverse characteristics, goals, and problems.

System A

System A, the largest of the three systems studied, employs approximately 500 professional workers and has two high schools. The system, like the city in which it is located, is generally considered conservative and somewhat slow to change, but has the reputation of being a solid system. In general, while innovations are introduced, they tend to be carried on in a few schools as pilot projects and their spread is slow. In the study involving eight school systems done in 1967, School System A ranked sixth in innovativeness (Hilfiker, 1969). The city itself, which is a small manufacturing community, is growing but is doing so at a slower rate than many other cities in the state. Some of its major industries are spreading elsewhere. In the immediate perspective, stability is perhaps the word that describes both the city and the system best.

The Change-Agent Team in System A began with six members selected by the Superintendent. The group included a school board member, an Assistant Superintendent, a school psychologist, two principals, and a junior high school teacher. During the first year of the project the members of the team felt that more teacher representation was desirable and included an elementary teacher and a senior high school teacher on the team. This group chose the introduction of Independent Study as its goal. This project, aimed at assisting teachers to provide opportunities for students

to progress at their own rates and to adapt instruction to individual differences, was begun at the elementary level. Approximately twenty teachers and administrators from three of the system's elementary schools were initial participants. They attended two sessions planned by the PEC Staff and the Change-Agent Team involving interpersonal relations, communication, problem solving, and an introduction to Independent Study. The format used for the Problem Solving Session is included.

Problem-Solving Session

Participants were 20 elementary teachers, 2 elementary principals, and the Change-Agent Team.

Goals

1. To identify and practice steps in problem-solving.

2. To plan future action through problem-solving.

3. To make plans to implement independent study procedures.

Training Design

Morning	Afternoon	Evening
1. Group Expectations	Independent Study Problem Analysis (Building Groups)	Re-examination of Force Field Analysis
2. Problem-Solving Session Described	Large Group Discussion of Force Field Analyses	Plan Change and Action Strategies
3. Non-Verbal Sequence	7. Open-Ended Sentences	Discussion of Action Strategies
4. Triad Discussion Role Playing Independent Study—defined		Evaluation of the Session
5. Individual Analysis of Problems (Organizational and Personal-Professional) Triads		
6. Description of Force Field Analysis		

Activities

GROUP EXPECTATIONS. Feelings about the session were discussed by participants. Each member of the group wrote down one word describing his expectations for the session. These were referred to and analyzed by participants.

PROBLEM-SOLVING SESSION. Human Development Laboratory Training provided by the PEC Staff was concerned with two types of activities: process (human relations training) and task doing (planning for the introduction of changes within the school system). A problem-solving session combined both process and task doing activities (see Figure 10).

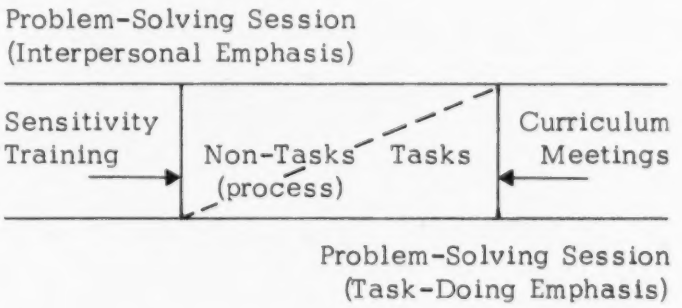


Figure 10

Integration of Process and Task

NON-VERBAL SEQUENCE. This was used as an opening exercise. Participants expressed feelings without verbalization and later discussed these feelings with others. This sequence included: walking without greeting others, greeting others non-verbally without physical contact, greeting others with physical contact, choosing a partner, communicating with the partner without words, and a subsequent discussion of the exercise.

TRIAD DISCUSSION—ROLE PLAYING. One person for independent study, one against it, and one with neutral feelings formed triad discussion groups. Members took opposite roles in convincing members of the triad about independent study. The neutral member acted as an observer and clarified topics which were discussed.

INDIVIDUAL ANALYSIS OF PROBLEMS. Each participant spent some time listing problems which would be encountered in the school system when introducing independent study

procedures and then listed individual problems which would be met when implementing this innovation. A subsequent discussion of these problems was held in triad groups.

FORCE FIELD ANALYSIS. This procedure requires the identification of positive and negative forces which tend to push toward or against a particular goal [in this situation, independent study], diagnosing the problem situation, considering action alternatives, trying out the action plan, and finally diffusing and adapting the plan. One force field analysis developed at the session is included here.

INDEPENDENT STUDY. Work by individual students in which they define their own learning goals on the basis of felt needs and study in areas with teacher guidance, much of which would be in a consultative capacity.

Negative Forces	Positive Forces
1. Rigidity of the "System"	1. Change-Agent Team
2. Lack of knowledge concerning Independent Study procedures	2. Possibility of in-service training and visits to see models of independent study
3. Teacher resistance to change	3. Administrative and teacher enthusiasm
4. Parental resistance to change	4. Parent involvement programs
5. Student resistance to change	5. Student enthusiasm
6. Lack of equipment and supplies	6. Possibility of more teacher sharing and better use of library facilities
7. Lack of teacher time	

OPEN-ENDED SENTENCES. Each participant completed the following sentences:

I feel a sense of helplessness when _____.

A child in my class feels powerless when _____.

Members of the group then found a partner whom they felt would have different answers than they and discussed the sentences.

This group and the Change-Agent Team continued to participate in planning and evaluating meetings in an attempt to develop the use of more Independent Study procedures within the school system.

Administrators and Guidance Personnel of this system were also involved in a series of Human Development Laboratories planned by the Change-Agent Team and the PEC Staff. These sessions were aimed primarily at improving communications and problem-solving skills and in developing a commitment to desirable change among participants.

During one of the administrative sessions a problem concerning curriculum development was identified and a force field analysis developed. It is included here.

PROBLEM. How can we best organize to meet the needs of the curriculum?

1. Possibility of employing a Director of Elementary Education and a Director of Secondary Education. This would provide:

   a. Greater involvement of teachers with additional personnel.

   b. More positive forces (continued coordination and flexibility of classroom instruction).

   c. Coordination of elementary, junior, and senior high school programs.

   d. Teacher in-service training strengthened.

      1. released time

      2. para-professionals

      3. resource persons and consultants

      4. clarification of <u>total</u> program

Negative Forces

1. Lack of instructional personnel

2. Special area supervisors may get too involved in their own areas

3. Lack of overal understanding of the total program

Participants (central office staff, principals, teachers, and CAT) at the session discussed this problem and the force field analysis. It was decided to ask the school board to create the two new positions. This was done: job descriptions were written and the central office staff in School System A now includes a Director of Elementary Eduation and a Director of Secondary Education.

In addition, approximately 40 participants including the entire Guidance Staff, several teachers and administrators, and the Change Agent Team attended the two Human Relations Laboratories planned for Guidance Personnel in the school system.

Since the beginning of the Planned Change Project 69 people have received a total of 3536 training hours in System A (see figure 11). A 2-day planning session was held by the Change Agent Team at the end of the school year to determine goals for 1969-70 which included planning for Human Development Laboratory Training for additional 70 teachers interested in Independent Study and developing a budget to be incorporated in the budget of the school system.

During this time the Change-Agent Team in System A evaluated the Planned Change Project in this manner:

"In accord with the objectives of the project our Change-Agent Team has undergone a series of training sessions in Human Relations and Problem Solving areas, has determined educational needs within the school system, and has begun to introduce a particular innovation—Independent Study—into the schools. This has been done by determining where and with whom the innovation should be introduced and by re-educating personnel of the system through sensitivity training, in-service sessions, observations, and planned meetings.

"Of particular value to the Change-Agent Team during the three years of involvement in the project has been: (1) consultant services of members of the PEC staff; (2) the makeup, continuing membership, stability and increased maturity of the Change-Agent Team which has made this group more effective; (3) Human Development Laboratory Training which has promoted positive change in attitudes on the part of educators involved; and (4) enthusiasm and interest shown by members of elementary schools involved in the Independent Study projects.

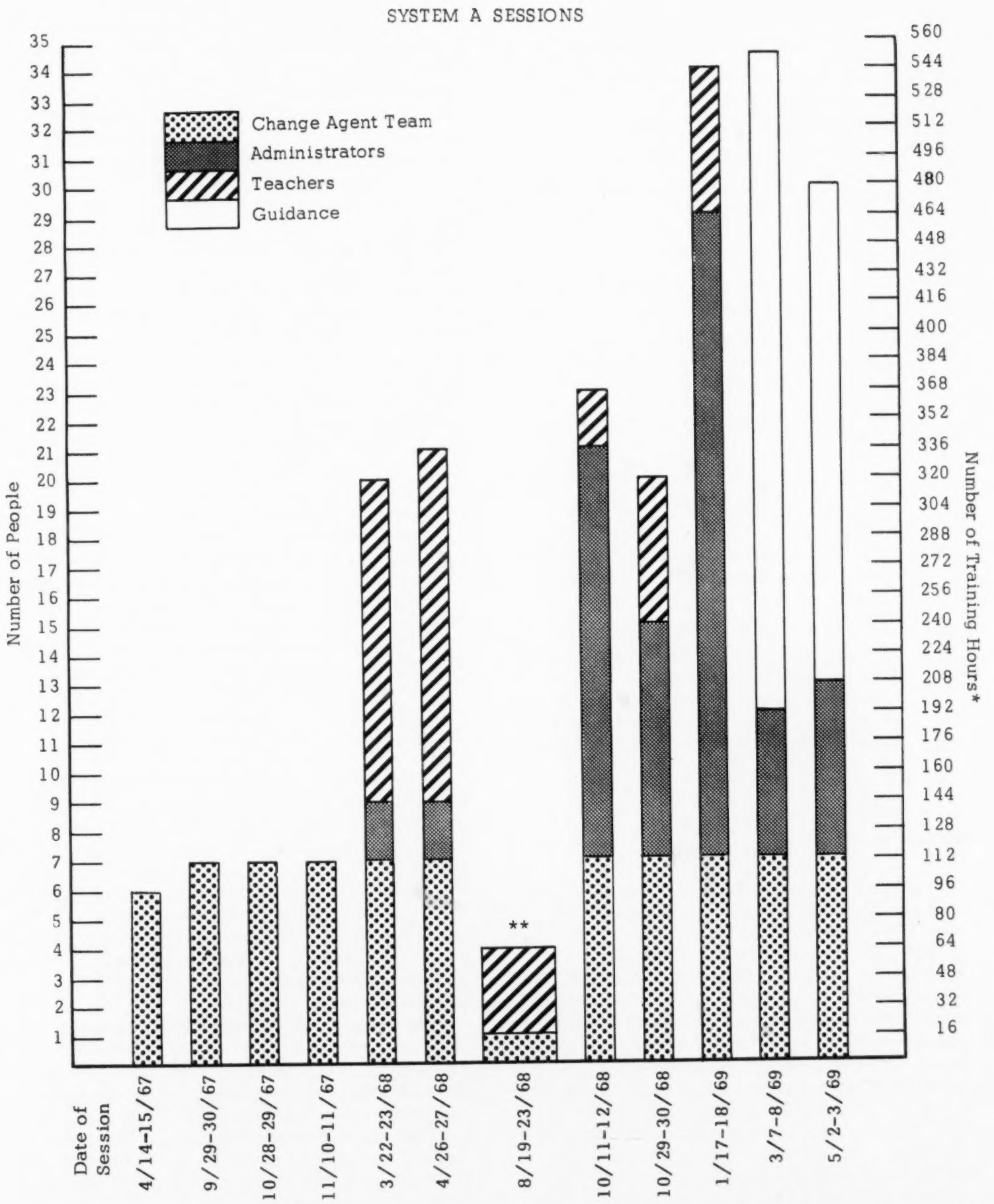
"Negative aspects of the project as seen by the Change-Agent Team include: (1) limited use of feedback from data collections; (2) lack of time had by members of the Change-Agent Team (a great deal of time and planning is needed to effect worthwhile changes); (3) resistance to change by some professional educators.

"The Change-Agent Team believes that Human Development Laboratory Training has resulted in an increasing sense of trust and respect within the school system and that additional sessions should be conducted under the direction of trained leaders. It also feels that this project should be continued and the members of the PEC Staff should be maintained as consultants. The focus must now be on our school system, however, and the Change-Agent Team must make decisions and move out on its own."

The makeup, continuing membership, and training of the Change-Agent Team in this school system proved advantageous to the project as did the obvious support of the Superintendent of Schools, the approval of the Board of Education, the guidance of the PEC Staff and the enthusiasm and support of those who participated in Human Development Laboratories. Size of the school system and the lack of time to plan and implement change seemed to be the major obstacles to the attainment of the specified goals of this team.

System A

1967	
	Change-Agent Team established —six members
March	Data Collection—PEC Staff
April	Human Development Laboratory—CAT
Sept.	Change-Agent Team expanded—seven members Human Development Laboratory—CAT
Oct.	Human Development Laboratory—CAT Decision to focus on the introduction of Independent Study as a goal for CAT
Nov.	Human Development Laboratory—CAT
Dec.	Questionnaire sent to professional staff by CAT to determine feelings concerning Independent Study
1968	
Jan.	Change-Agent Team expanded—eight members
Feb.	Planning session with teachers and PEC Staff to develop objectives for Human Development Laboratory to be held in March
March	Human Development Laboratory—Teachers and administrators from three elementary schools interested in Independent Study, CAT
April	Human Development Laboratory—Participants of March session
May	Visits to view models of Independent Study in other school systems teachers, administrators, CAT Training session—CAT



*Training hours = 16 hours per person per session
**Five day session (48 hours)

Total Training Hours = 3536
Total Number of People Trained = 69

Figure 11

Man Training Hours

Aug. Human Development Laboratory—Teachers and one CAT member

Sept. CAT presentation to professional staff at pre-session

Oct. Human Development Laboratory—Administrators, teachers, CAT

Nov. Human Development Laboratory—Administrators, teachers, CAT

1969

Jan. Human Development Laboratory—Administrators, teachers, CAT

March Teachers from three pilot schools project plans for Independent Study projects, for 1969-70 school year

Second data collection—PEC Staff and CAT

Human Development Laboratory—Guidance counselors, teachers, administrators, CAT

May Human Development Laboratory—Guidance counselors, teachers, administrators, CAT

June Two-day session held by CAT to determine goals for 1969-70 school year (including planning for Human Development Laboratory training for an additional 70 teachers interested in Independent Study and developing a budget for the CAT)

System B

System B is also located in a manufacturing center. The community has a population of over 10,000 and is growing rapidly. This growth puts pressure for expansion on the school system and gives it the opportunity to be innovative as it constructs new schools to meet the increased demands. There are approximately 200 professional employes in the school district. In 1967 it was rated as the most innovative system of the eight in the sample; hundreds of teachers and school administrators visit it every year to observe its innovative procedures. Partly because of rapid changes in the community, this school system underwent several great changes during the time it was involved in the study. These included a change in the superintendency and subsequent resignation of two school board members, the passing of a twice-defeated school bond issue, and the planning of a new high school.

The Change-Agent Team in System B consisted initially of thirteen members, including the Director of Instruction, nine members of the High School faculty, three members of the Junior High School faculty and an Elementary School principal. After approximately eight months of work, the new Superintendent felt that a Change-Agent Team should be elected and asked that the initial group be disbanded and that new members be voted for. The election was held and all members of the original Change-Agent Team were re-elected by their colleagues with the exception of one faculty member. This was the first re-organization of the team. The second change in the group's structure came several months later when the Superintendent again decided to re-organize the team. There were fourteen members of this new group, one from each of the departments in the high school and the Director of Instruction. The new Change-Agent Team included only three of the original team members.

The Change-Agent Team in System B went through two periods of training and identifying needs in the school system. The initial team had focused on modular scheduling and independent study as the innovations which they felt should be introduced into their schools. After the team's re-organization the bond issue in the system passed. This gave the new Change-Agent Team a goal: that of helping to train other teachers to accept and practice innovations in the high school which was to be built.

In order to do this the Change-Agent Team decided to have a Human Relations Laboratory which would include all 100 members of the high school faculty. The team and the PEC Staff spent a day and a half in preparation for the Laboratory. Goals for their planning meeting included: (1) To prepare a diagnosis of the faculty meeting, (2) to consider operational plans for that day, (3) to develop training exercises and instruments to be used in faculty and departmental meetings.

The Change-Agent Team identified goals and problems, and listed and assigned priorities to these goals and problems. The group also developed a force field analysis of the task of involving the entire staff of the high school in a Human Development Laboratory. The team decided to function as co-trainers with the PEC Staff and assisted in the planning and preparing of the training design.

The format of the training design is included.

Decision-Making Session

Participants were 100 members of the high school faculty. The Change-Agent Team

assisted the PEC Staff and acted as co-trainers.

Goals

1. To further develop communication and decision-making skills.

2. To compile recommendations for means of involving the faculty in the study of innovations.

3. To acquaint faculty members with the type of participation techniques the Change-Agent Team has been developing.

Training Design

Morning	Afternoon
Group Expectations 1. Open-Ended Sentences Triad, Cluster, and Large Group Discussions 2. Locus of Decision-Making Exercise Cluster discussions of improvement of decision-making processes	3. Two Way—One Way Communication Exercise Discussion of listening exercise Innovations Ways to involve faculty in the study of innovations 4. Participation-Observation- Participation Exercise

Activities

OPEN-ENDED SENTENCES. Each participant completed the following sentences:

I think the biggest communication problem in this school system is _____ _____.

I think that this communication problem exists because _____ _____.

I think we can solve this problem by ___ _____.

After individuals had completed the sentences, the large group was divided into triads for discussion of individual responses and subsequently met in clusters (groups of nine or ten people) to further analyze the completed sentences.

LOCUS OF DECISION-MAKING EXERCISE. Each participant was asked to complete an instrument which listed approximately 20 items which are of concern in school systems and to decide: (1) Where decisions concerning these items were then made; (2) where these decisions should be made. Possible decision-makers included school board, central office administration, principals, teachers, and students. The instrument was constructed in the following manner:

Decision Items	Present Locus of Decision-Making	Desired Locus of Decision-Making
1	B O P T S	B O P T S
2	B O P T S	B O P T S

Several of the Decision Items are included here:

1. The decision on how the school calendar (number of days taught and when) will be determined, assuming that state legal requirements are met.

2. The decision on which instructional aids will be available for teachers' use.

3. The decision on the selection of textbooks.

4. The decision concerning parent-teacher conferences.

5. The decision on the hiring of teachers.

6. The decision on pupil discipline outside of the classroom.

7. The decision concerning the use of pupil achievement tests and scores on the building level.

When participating in the Locus of Decision-Making Exercise, teachers and principals felt that the central office and the Board of Education made the most decisions, but deemed it desirable that they be more involved in the making of decisions.

A summary of answers given to the Decision-Making Instrument is included here.

Participants believe the following to be the actual place of decision-making (where decisions are made now):

Students — 5
Teachers — 112
Principals — 477
Central Office — 503
School Board — 154

Desirable places of decision-making (where decisions should be made) according to participants include:

Students — 13
Teachers — 676
Principals — 459
Central Office — 119
School Board — 53

A discussion of the decision-making process and the perceived and desired loci of decision making was had in clusters and then with members of the entire group after the completion of the exercise.

TWO WAY—ONE WAY COMMUNICATION EXERCISE. Participants were divided into three groups. Each group was asked to follow directions and draw a diagram consisting of rectangles placed in various positions. The first group was given printed directions, the second was given directions orally by someone who could not respond to questions, and the third was given oral directions by a person who could answer any questions which were asked of him by those completing the diagram. A discussion of the exercise and the merits of two-way communications followed.

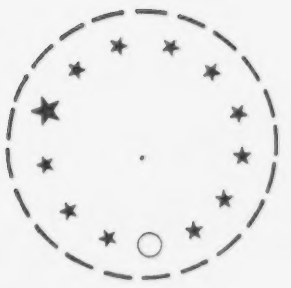
PARTICIPATION-OBSERVATION-PARTICIPATION EXERCISE. Members of the Change-Agent Team and the Superintendent of Schools met in an inner circle with one empty chair to discuss recommendations concerning decision-making which were formulated by clusters. The remainder of the faculty was seated in a larger outer circle. They observed the group's process and could participate in the discussion if they desired by going to the inner circle and being seated in the additional chair (see Figure 12).

Several recommendations for Decision-Making compiled during this session are included below:

1. We believe that factors affecting teachers should be a cooperative decision.

2. We are agreed that a definite problem exists regarding communication between staff and administration, and that change must take place concerning communication among parties. In any instance of contention with faculty decision, the school board or other members of this community may call a public meeting to discuss the action of the faculty and overrule it.

3. We feel that a well-defined communications system that allows for a free flow of ideas among all parties should be structured so that decisions are reached with mutual trust and confidence.



★ CAT Member

★ Superintendent

○ Empty Chair

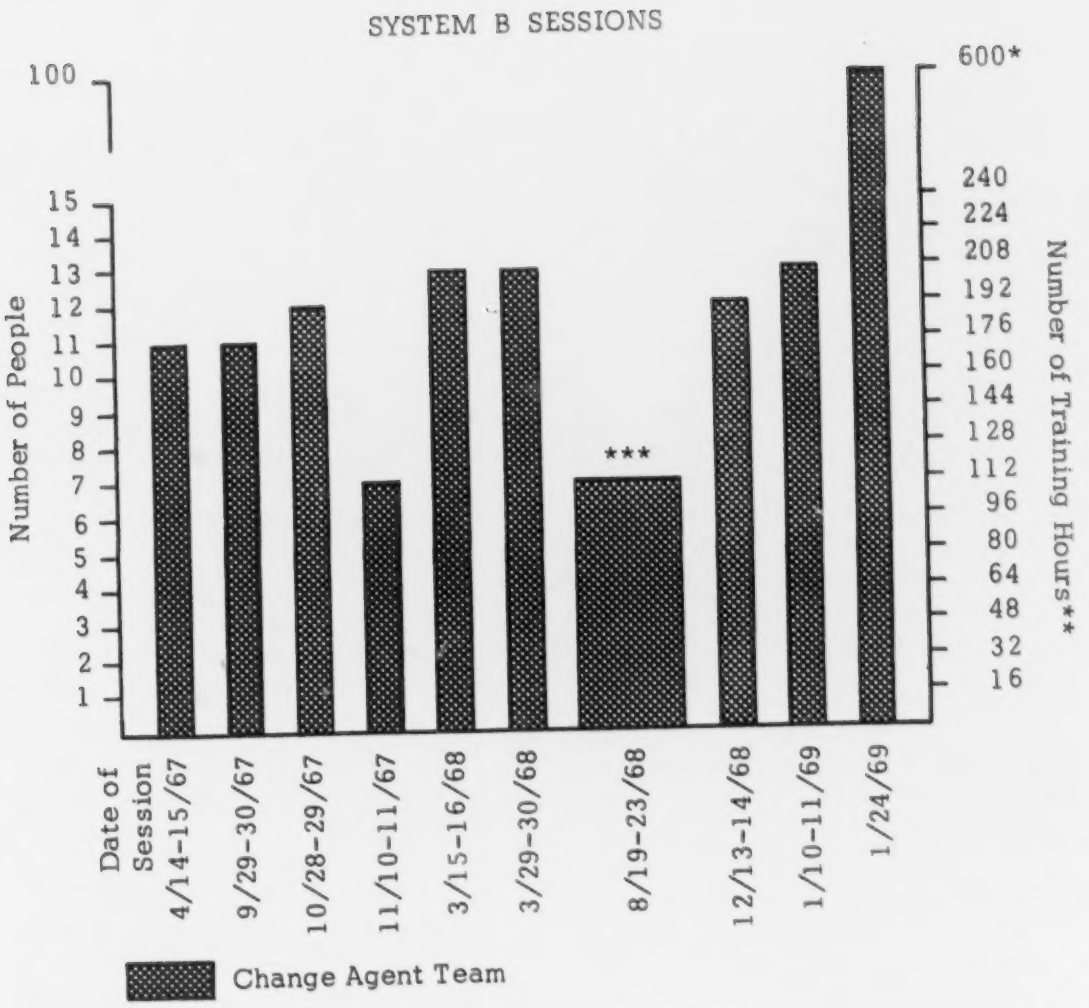
– – – Faculty Members who could participate by going to the empty chair

Figure 12

Final Session of a Day of Problem-Solving

One member of the Change-Agent Team evaluated the high school Human Development Laboratory in this manner: "People told me this was the best in-service we've ever had. They expressed very positive personal feelings. My own were a little less positive." Another stated: "People see us trying to make progress and feel better about CAT." A third stated: "Frustration was high after the meeting. People felt they were cut off too soon. Some self-condemnation: people felt they had been hypocritical." While still another evaluated the session in this manner: "What are the next steps? The staff is ready for more involvement."

In general members of the System B Change-Agent Team were committed to the project. During the two years approximately 125 professional members of the school system received 2,408 hours of laboratory training (see Figure 13).



*IN ADDITION: 100 members of the high school staff attended a one day session —an additional 600 training hours.

**Training hours = 16 hours per person per session

***Five day session (48 hours)

Total Training Hours = 2408

Total Number of People Trained = 25

(Approximately 10% of the professional staff)

Figure 13

Man Hours of Training

The initial team had been trained and was ready to begin incorporating the innovation which they had chosen. Because the group was recognized, training of the new team, identification of needs and problems, and the selection of an innovation to introduce into the school system had to be done a second time. Human Development Laboratory training, commitment of members of the Change-Agent Team to the project, and the support of the PEC Staff seemed to be factors which contributed to the success of the group. Lack of Change-Agent Team stability, uncertainty about the future of the team, reorganization of the group, the team's need for retraining, and the lack of obvious support from the Superintendent of Schools were major obstacles encountered by this team in the attainment of its goals. The Change-Agent Team in System B decided to continue to meet during the following school year.

System B

1967

Change-Agent Team established

March Data Collection—PEC Staff

April Human Development Laboratory—CAT

Second defeat of School Bond Issue—High School

	Resignation of Superintendent and several School Board members
	New Superintendent
Sept.	Human Relations Laboratory—CAT
Oct.	Superintendent disbands CAT and asks for election of new CAT—all re-elected but one member
	Human Development Laboratory—CAT Decision to focus on modular scheduling and independent study as a goal for CAT
Nov.	Human Development Laboratory—CAT
Dec.	Superintendent disbands CAT by changing the structure (one teacher from each department in the high school—14 members. Only three of the original team remain.)
1968	
Jan.	New team begins work—identifying problems, etc.
March	Bond issue passes
	Human Development Laboratory—CAT CAT decides to help train to introduce innovations in new high school building
	Human Development Laboratory—CAT
	Human Development Laboratory—CAT
May	Training Session—CAT
Aug.	Human Development Laboratory—five CAT members and Superintendent
Sept.	Meeting—CAT and PEC Staff
	PEC Staff member addresses the Board of Education and describes planned change project
Dec.	Human Development Laboratory—CAT
1969	
Jan.	Training Session—CAT
	CAT and PEC Staff plan laboratory training for secondary school staff
	Human Development Laboratory—Entire secondary school staff (100 members) —PEC Staff and CAT, trainers
March	Second Data Collection—PEC Staff and CAT
June	CAT plans to continue
	Superintendent resigns
	New Superintendent

System C

System C was the smallest in the study. It serves two villages and consists of two elementary schools, one in each village and a high school. Approximately 80 professional workers are employed by the district. System C is a new school district and is also highly innovative; it ranked third in innovativeness among the eight systems studied in 1967. It is somewhat restricted, however, by being located in a rather conservative area; a survey of parents in 1969 showed that 46% felt that "too many" new ideas were being tried in their schools. Another problem in this district is a high turnover of staff, due in part to the hiring of young teachers who are spouses of students at the University of Wisconsin.

The initial Change-Agent Team in System C was made up of five administrators. During Summer 1967 the district acquired a new Superintendent. He became a member of the Change-Agent Team and the group was later expanded to include four teachers bringing the total membership to nine. A unique situation occurred in this system. A member of the PEC Staff was a resident of the district, a member of the school board, and had been instrumental in unifying the district and planning for the new high school. This may have influenced the involvement in and continuation of the Planned Change Project in this school system.

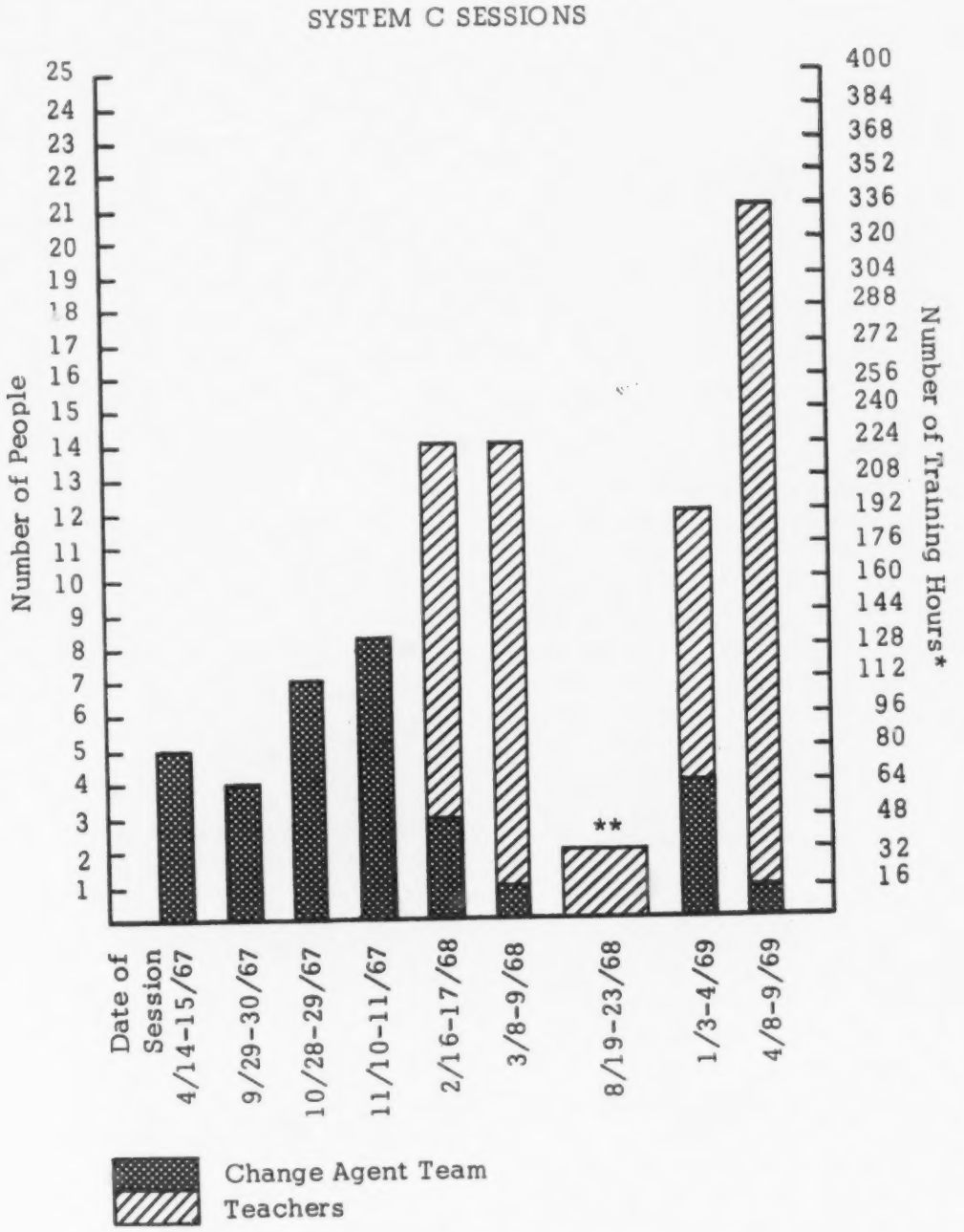
Because many of the original members of the Change-Agent Team left the district after the first year of the project, the group was reorganized during 1968. The structure of the team was changed at this time. Three committees, one in each school, plus a coordinating committee of three principals were formed. The Superintendent was no longer a member of the Change-Agent Team after its restructuring.

The goal of the initial members of the Change-Agent Team was to write a Philosophy of Education for the school district. This was a very appropriate project. Because of the high turnover in the district, a written philosophy was valuable for new teachers and gave the new Superintendent a chance to shape and influence policy in his school system.

This philosophy, however, may have caused problems in the district. It was written by members of the Change-Agent Team who, at this time, were the younger, more innovative, teachers that would, for the most part, remain in the system only a year or two. Since older teachers who lived in the district and had taught in the schools for many years were not involved, feelings of resentment and a division between the two groups seemed to develop at this time.

After this project was completed, the Change-Agent Team focused on the implementation of non-graded elementary schools. With the reorganization of the team, improvement of the format of high school classes and the introduction of unitized elementary schools became major goals of the group.

During the two years of the Planned Change Project, approximately 65% of the professional staff in School System C spent a total of 1,440 hours in Human Development Laboratory training sessions (see Figure 14).



*Training hours = 16 hours per person per session
**Five day session (48 hours)

Total Training Hours = 1440
Total Number of People Trained = 53
(Approximately 65% of professional staff)

Figure 14

Man Hours of Training

The initial group, from within the school system, chosen by the Change-Agent Team to participate in the Laboratory training was composed of the English team from the high school and their principal (seven members) and the upper primary teachers from Elementary School A (six members). The elementary school was to be initiating team teaching and ungraded classes in the Fall and members attending the session from this school would be working as a team at that time. It was hoped that this session might bring the groups into dialogue and that the elementary school faculty would be helped to successfully implement their innovative procedures.

Originally the training design called for T-Groups combining members of both faculties. The format was changed, however, when it became apparent that the English team had personal and philosophical differences which needed to be explored. Because of this, the English team worked alone while the elementary faculty met separately to discuss problems and procedures in preparing for the coming innovations.

The English team had varying reactions to the training. Two members left the session before the end and did not return. Others felt that the session had been very helpful. Some members were simply confused by what had taken place. All seemed to agree that problems that had been buried before were out in the open. By the end of the semester, however, the English team disbanded. This was blamed, by some, on the Laboratory training.

What actually happened with this group is a matter for conjecture. They had problems when they arrived. Whether these problems could have been solved by more training or whether the training aggravated them is impossible to determine. This Human Development Laboratory training session, however, had a deleterious effect on the succeeding labs since it frightened potential participants and caused the Superintendent to become unsure of training sessions and their effect. Anxiety feelings at the beginning of further sessions in System C were always higher than in any other system after this Laboratory.

In comparison, the elementary school faculty members attending this session had a very successful experience and asked to come back in a week or two and bring their principal, a member of the Change-Agent Team, so that they could make more progress in preparing for changes. As a result, a second training session was held for members of this group.

After the reorganization of the Change-Agent Team, a combined training session was planned and executed for members of the Teachers' In-service Committee (a functioning committee in the school system) and the Change-Agent Team. This session considered further training sessions for the rest of the faculty and particularly with the two committees and the School Board to better define the committees' functions and the Board's policy.

The final laboratory training session held in School System C focused on problem solving techniques and the use of consultants for training in a specific area. Participants included the faculty at Elementary School B who requested the training before initiating plans to become a unitized school. The format used for this session is included.

Laboratory Training Session

Participants were faculty members of an elementary school.

Goals

1. Examination of the unitized plan and development of faculty commitment to the plan.

2. Examination of faculty competencies in the team work required to implement the Unitized School.

3. Development of communication skills of faculty and principal.

Training Design

Morning	Afternoon	Evening
1. Non-Verbal Sequence 2. Group Expectations Discussion of training objectives 3. Open-Ended Sentences 4. D-Groups	D-Groups 5. Force Field Analysis	6. Preparation for Consultants
Morning		
Consultants—Unitized School		

GPO 825-076-6

Activities

NON-VERBAL SEQUENCE. Participants expressed feelings without verbalization and later discussed these feelings with others. This sequence included: walking without greeting others, greeting others non-verbally, and working with an invisible magic ball. Members of the group then selected a partner and non-verbally cooperated in drawing a picture showing how participants felt about being at the session.

GROUP EXPECTATIONS. Feelings about the session were discussed by participants and pictures drawn non-verbally with a partner were referred to and analyzed by participants.

OPEN-ENDED SENTENCES. Each participant completed the following sentences:

> My greatest difficulty in working as a member of a unitized school will be __ _____.
>
> As a member of the faculty I feel the support of my colleagues when _____ _____.
>
> A strength of the unitized school plan will be _____.

The group split into three sub-groups and discussed the sentences and their answers.

D-GROUPS. These sub-groups were unstructured and members were free to discuss any subject including interpersonal problems and give feedback to others concerning reactions and feelings.

FORCE FIELD ANALYSIS. This procedure requires the identification of positive and negative forces which tend to push toward or against a particular goal (in this situation, the unitized school), diagnosing the problem situation, considering action alternatives, trying out the action plan, and finally diffusing and adapting the plan. The force field analysis developed at this session is included here.

Unitized School

Negative Forces	Positive Forces
1. Classes too large	1. Desire to reach child as an individual
2. Children overdirected	

Unitized School (cont)

Negative Forces	Positive Forces
3. Lack of time for materials	2. Desire for greater achievement
4. Lack of community understanding	3. Desire to define and differentiate roles
5. Cognitive achievement may not signify improvement	4. Desire for more student creativity
6. Discipline problems	5. Desire for students to assume more responsibility
7. Teacher hesitation	6. Desire to reach the whole child
	7. Desire for teacher satisfaction

PREPARATION FOR CONSULTANTS. In order to make effective use of consultants in the area of the unitized schools, questions were formulated to guide them in their discussion. They are included here.

1. When developing a unitized school, how should leaders be chosen?

2. How can leaders get the team to work together?

3. What things should the administrator give attention to in order to make the plan work?

4. What were the most critical problems which you faced?

5. What changes are you planning for September?

6. What criteria have you used to evaluate the program and who has done the evaluating?

Participants at this session were very satisfied with progress in content work: examining plans for the unitized school, working with the consultants, developing the force field analysis. Some felt that, in addition to this, communications within the group itself had also improved.

A questionnaire was sent to members of the professional staff in System C. Members were

asked to evaluate the Change-Agent Team in the school district. Several responses to the question, "How is the Change-Agent Team different from other school committees?" are recorded here.

> "The Change-Agent Team deals with people working on various levels in the system. It is more of a planning and thinking committee."
>
> "It works in a larger area dealing with the whole school. Other committees deal with a specific area."
>
> "The Change-Agent Team seeks to improve the whole school system."

Size of the school system and the innovativeness of its faculty members were probably the greatest assets to this Change-Agent Team. System C had only 80 professional employes. The Change-Agent Team could, therefore, make and see progress in a relatively short period of time. Due to normal teacher turnover, however, the composition and structure of the team was changed almost entirely during the second year of the project. This, and a seeming lack of commitment to the concept of the Change-Agent Team and the Human Development Laboratory training by some of the professional staff members were probably the major obstacles to the success of the team.

System C

1967

Change-Agent Team established—5 members

March Data Collection—PEC Staff

April Human Development Laboratory—CAT

New Superintendent

Sept. Human Development Laboratory—CAT

Team expanded (9 members)

Oct. Human Development Laboratory—CAT
Decision to focus on Development of Philosophy of Education for the school system

Nov. Human Development Laboratory—CAT

Dec. Philosophy of Education completed

1968

Jan. CAT focuses on implementation of Non-Graded Elementary Schools

Feb. Human Development Laboratory—English team, Elementary School A faculty, three CAT members

March Human Development Laboratory—Elementary School A faculty

May Training Session—CAT

June English team disbanded
Most of CAT members leave school system

Aug. Human Development Laboratory—two teachers

Sept. CAT and PEC Staff meet and decide to continue and reorganize
(Reorganization included the formation of three change agent groups—one at each school and a central CAT to coordinate the groups. The central committee was made up of the three principals. The Superintendent was no longer a member of a CAT.)

CAT decides to work on improving format of high school classes and unitized elementary school

CAT collects data on student-teacher, teacher-student feelings

1969

Jan. Human Development Laboratory—five CAT members and In-service Committee

April Human Development Laboratory—Elementary School B
Focus: Unitized School

March Second Data Collection—PEC Staff

June CAT plans to reorganize and continue in September

IV
Achievements and Evaluation

The PEC Staff obtained a variety of information to evaluate the effects of interventions in the three experimental systems (Hilfiker, 1969). These included observations of support for Change-Agent Teams and laboratory training, casual observations of personal growth and growth in the effectiveness of Change-Agent Teams after laboratory training, evaluations of the program from anonymous questionnaires, and systematic data on changes in attitudes and behavior from questionnaires administered at the beginning and conclusion of the study.

Effects of Laboratory Training

The leadership of each of the experimental school systems evaluated the effects of laboratory training positively. After observing some of its effects, they committed substantial resources to further training. Although the Research and Development Center covered the costs of training, the school systems were responsible for the costs of meeting rooms, meals, overnight lodging for participants in the sessions, and the salaries for substitutes to replace teachers who were in training sessions. Given the many hours spent in these sessions (see Figures 11, 13, and 14, Chap. III), these represent sizeable investments, and it is unlikely that the schools would have invested so heavily had the training not been perceived as useful.

The Change-Agent Teams that experienced laboratory training survived and continue to exist. In contrast, the teams established in two of the five control school systems, receiving no laboratory training or external support, withered and died before they became well organized.

From observing the teams in training sessions and listening to tape recordings of their regular meetings the PEC Staff became convinced that the human relations training was being utilized outside of the training sessions and was increasing the effectiveness of the teams. For example, one tape revealed a confrontation between two members discussing the absence of one of them from the previous meeting. The other was angry and felt that this absence denoted a lack of commitment. Business was set aside until this confrontation was satisfactorily resolved and the group was ready to work again. In another meeting a group member remarked, "I have often sat at this table and felt frustrated and afraid to say anything." There was a moment of silence and then a shocked, "In this group!" from another member. The first immediately exclaimed, "Oh, no! I meant with other committees that meet in this room." This was followed by a relieved, "I couldn't imagine that you wouldn't feel free in this group." It seems apparent that openness and freedom of communication became values for this Change-Agent Team.

The same types of observation reveal the personal growth of teachers and administrators who have experienced human relations training. A specialist who worked with personnel in several schools had asked to participate in the human relations training because, she said, "During the year I noticed that suddenly a teacher would become more easy to work with, listen more, and be willing to try out my suggestions. Then one day I discovered all the teachers who had changed had been going to the training sessions." A teacher reported that training had improved her teaching. One of her children had even told her that the class enjoyed school more, "because now you treat us more like people." Another team member found a particular human relations exercise carried out at one of the laboratories very helpful to him in understanding the reactions of others. Two years later when another laboratory session was being planned in the same system one of his team mates suggested that the exercise be used again. Turning to the

member who had originally found the exercise valuable she remarked, "You remember that exercise—the one that changed your whole life!"

Human relations training seems to have created an opportunity for people to explore change. In one system the Change-Agent Team brought together the faculties of three elementary schools to discuss introducing independent study in their classrooms. During the meeting one lady explained in strong terms to the Superintendent why she opposed independent study and why it wouldn't work in her classroom. Following this discussion, she and others who opposed independent study, along with some who were in favor of it, formed a study committee to investigate it for themselves. A few months later the PEC Staff received a tape recording of a meeting of the Change-Agent Team with this group of teachers. On the tape the same teacher was heard to say, "I don't see why we can't go ahead with independent study right away. I'm already using it with my class. Why are you administrators always slowing things up?"

Another group of teachers used the laboratory setting to plan for an innovation that was to be introduced in their school in the following Fall. After much discussion they arrived at the conclusion that they were blocked because it wasn't clear what the principal, who was not present at the laboratory, actually wanted. They went back to their school, confronted the principal, and arranged for a second laboratory session to be held with him present to clear up the ambiguity.

Responses to a Questionnaire

These casual observations concerning the effectiveness of human relations training are given some support by the responses to questions asked of samples of more than two-thirds of the professional staffs of the three experimental systems in 1969. About 22% reported attending meetings arranged by the Planned Change Staff, and about 17% reported attending laboratory training sessions arranged by the staff; of the 96 attending such training sessions, the average number of sessions attended was 3.23. They were asked, "How valuable have these laboratory training sessions been to you personally?" The distribution of responses in each system is given in Table 3.

About one-third of the total reported that the experiences were of great personal value to them. They were also asked, "How valuable do you think these laboratory training sessions have been to your school system?" About 60% reported that the training sessions had at least some value for their school systems (see Table 4). The responses are more positive for personal value than for value for the school system; this is in accord with PEC plans and perceptions, for the PEC Staff felt that the value of training for the system would have to follow, in large part, changes in individuals and small groups. The differences among the three systems are not in accord with PEC personal judgments, for it was felt that staff interventions were far more effective in System A and less effective in System C than in System B.

Table 3

Personal Value—Distribution of Responses

Value for You Personally	System A	System B	System C	Total
Great Value	36%	31%	21%	32%
Some Value	35	34	42	36
A Little Value	9	19	33	16
No Value	15	16	0	12
More Harmful than Valuable	5	0	4	3
Total	100	100	100	100
(Number of Cases	(66)	(32)	(24)	(122)

Table 4

Value for School System—Distribution of Responses

Value for School System	System A	System B	System C	Total
Great Value	22%	22%	17%	21%
Some Value	43	28	42	39
A Little Value	18	31	33	24
No Value	7	19	8	11
More Harmful than Valuable	9	0	0	5
Total	100	100	100	100
(Number of Cases)	(67)	(32)	(24)	(123)

These judgments of value are highly correlated with the morale of teachers and their support for norms of openness, trust, and innovation. An index measuring morale (i.e., satisfaction with their schools, feelings of solidarity with other members of the staff) had a product-moment correlation of 0.31 with responses to the question about personal value and of 0.29 with responses to the question about value for the school system. An index of support for norms of openness, trust, and innovation had a correlation of 0.47 with responses to the question about personal value and 0.36 with responses to the question about value for the school system. (These two indices are described more fully in notes 3 and 4 at the end of this paper.) These correlations probably indicate that persons with these attitudes and norms find the training more valuable, rather than that those who find the training valuable change to have higher scores on the variables.

The data reported above tend to support the notion that the interventions by the Planned Change Staff were effective. Other data do not. Comparison of questionnaire responses for 1967 and 1969 provide no evidence that either individuals or school systems exposed to the interventions improved significantly more than those not exposed.

Teachers and administrators were asked many of the same questions in 1967 and 1969; these included the questions about morale and support for norms of openness, trust, and innovation, noted above, as well as questions about the amount of effort devoted to teaching innovations, the adequacy of staff meetings, and the quality of relations between teachers and principals. Data for 248 persons were available for these two time periods, although less than 13%, or 34 persons, of these 248 had attended any laboratory training sessions. There were no significant correlations between any of these change measures and frequency of exposure to laboratory training. For example, the correlation between an index of support for norms of openness, trust, and innovation and frequency of attendance at human relations laboratory training sessions was 0.03 for the 1969 responses and 0.14 for the 1967 responses. This is the opposite of what would be expected if the training had had a positive effect; to demonstrate such an effect there would have to be a significant positive correlation between exposure to training and the 1969 measure with the 1967 measure held constant. For the other dependent variables the absolute values of the correlations are even smaller.

These results are produced either by the failure of the interventions to produce significant effects on the larger population of teachers and administrators or by errors of measurement. There are several possible sources of measurement error: the sample of persons for whom data were available from both the 1967 and 1969 studies may be non-representative; there may have been errors in merging data from the two points in time; or the measures may be too unreliable to detect change (measurement unreliability attenuates correlations among change scores far more than correlations from raw scores). Although there is some evidence that the sample of persons for whom change

data are available is indeed somewhat unrepresentative, it is not believed that this error or other measurement errors can account for the low correlations, for the correlations would have to be much larger than they are to attain significance. It seems more likely that the limited amount of training most persons received was not enough to produce lasting changes in the dependent variables which were measured. This is especially true for teacher innovativeness and relations between teachers and principals, which were not expected to be directly affected by the training. It remains possible and likely that some teachers and administrators who received more intensive laboratory training were strongly affected by it, but the questionnaire data cannot demonstrate these effects.

The data for changes in school systems are superior in quality to the data for changes in individuals: the samples are larger, since it was not necessary to rely only on data for persons who answered questionnaires in both 1967 and 1969, and averages tend to be much more reliable than measures for individuals. Yet the average measures fail to show that the three school systems with which the PEC Staff worked intensively improved more than the five control systems. Some of the data are shown in Figures 15 and 16. Figure 15 shows average responses of teachers and administrators in the eight school systems studied to an 11-item index measuring support for norms of openness, trust, and innovation.[3] While the three experimental systems showed the highest average support for these norms in 1969, they

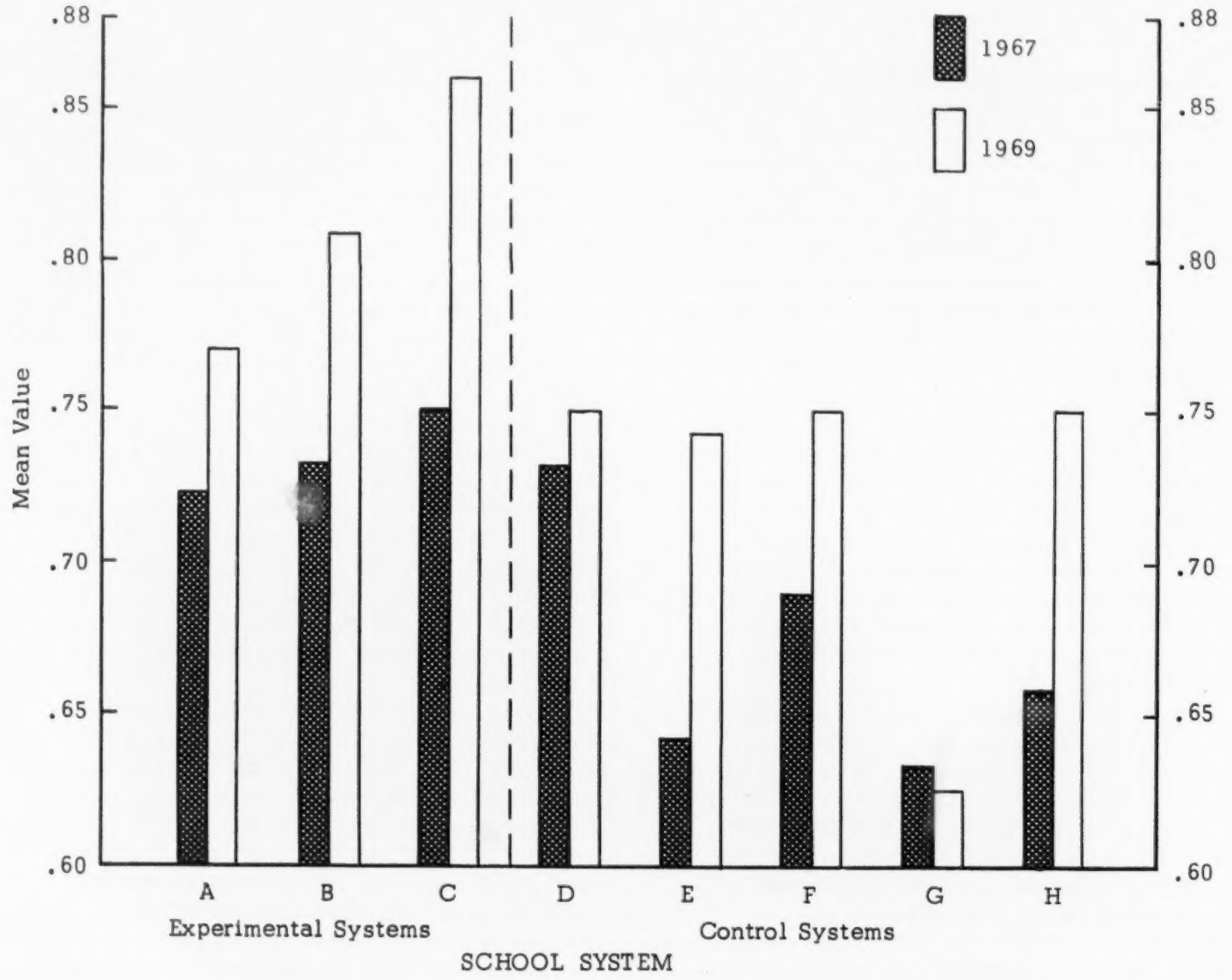


Figure 15

Mean Values of Support for Norms of Openness, Trust, and Innovation; Eight Wisconsin School Systems, 1967 and 1969

also did in 1967; the two systems showing the greatest improvement (numbers E and H) were in the control group.

The data in Figure 16 show changes in average responses to an 8-item index of morale between 1967 and 1969.[4] The index was based on questions such as "I find my job very exciting and rewarding," "I feel involved in a lot of activities that go on in this school," and "I really don't feel satisfied with a lot of things that go on in this school." Changes in the response categories, from "always" to "almost never" in 1967 to "completely agree" to "completely disagree" in 1969, probably account for the lower average scores in 1969 than 1967, but this bias should be constant across the eight systems. The graph shows that two of the three experimental school systems had less improvement in morale than two of the five control systems.

Data on teacher innovativeness, the adequacy of staff meetings, and the executive professional leadership of principals also fail to show that the experimental school systems improved significantly more than the control school systems.

The failure of these data to demonstrate the effectiveness of our interventions in changing basic norms and behaviors in school systems may stem in part from the limited intensity and duration of the interventions; in order to make a basic change it may be necessary to train more members of the school staffs more intensively and for longer periods. In addition, other events and processes occurring in these systems, events and processes not at all under

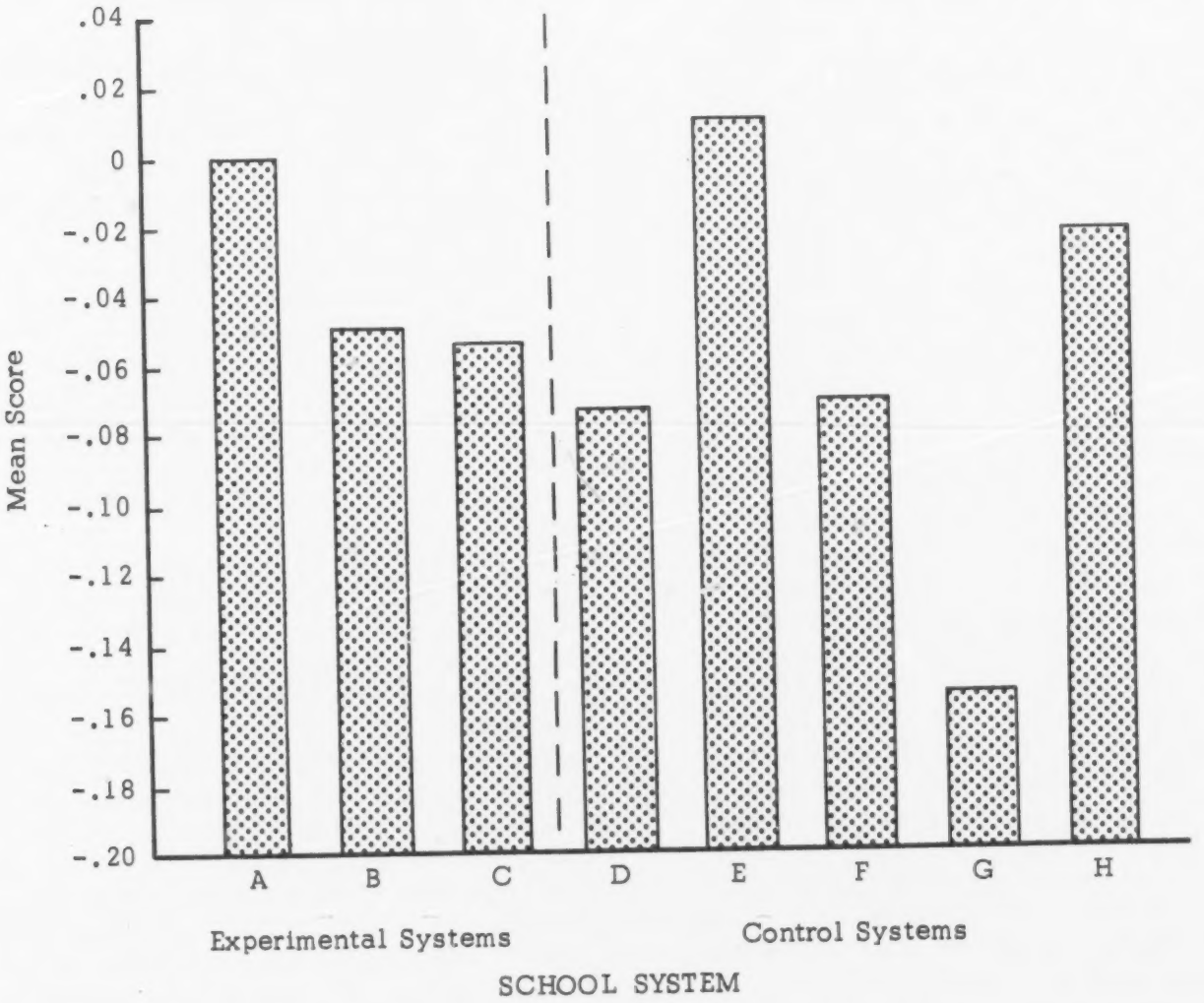


Figure 16

Relative Improvement in Mean Scores on Morale Index, Eight Wisconsin School Systems, Between 1967 and 1969

our control, were having large effects on teacher morale, teacher norms, and teacher innovativeness. These events and processes include administrative succession and staff turnover.

Administrative Succession

During the course of the project, two of the three experimental school systems experienced major changes in administrative personnel, while this was true of only two of the five control systems (and then the changes were less important). These experiences of administrative succession had great effects on personnel in the systems affected.

System A had the same Superintendent, Director of Instruction, and high school principals throughout the course of the study. The PEC Staff felt it was most effective in this system. Part of the reason for this success was the continuing stable support for the project from the school administration.

In System B the Superintendent resigned after the first collection of data in 1967 and after the Change-Agent Team had been established. His resignation was partly caused by the defeat of a bond issue in two successive elections and by disagreements with important school board members. He had been known as a permissive leader in an innovative school system. His successor, brought in from outside, was helped by the resignation of two school board members and by the passage of the bond issue for a new high school; he may have been partly responsible for the latter success. After two years, about the time of the second data collection, he announced his resignation. In the 2-year period the Director of Instruction and the high school principal resigned and were replaced; the new principal lasted only one year and was succeeded again. The succeeding superintendent was far more directive and dynamic than his predecessor and his contribution to the system in terms of educational design for the new high school will be felt for years to come in the system.

Administrative turnover was just as great in System C. Again the new superintendent took over from his predecessor after the first wave of data collection and after the commitment to the project had been made. His predecessor was the second of two superintendents of this highly innovative system. The two years of the study saw the replacement of the superintendent's major administrative assistant (a role corresponding to the Director of Instruction), the high school principal, and both elementary school principals. One of the new elementary principals was in the system for a year and was replaced. In addition, the central office had a special consultant for part of the period of the study, a dynamic woman who was associated with another innovative project in the system.

In contrast, only one of the five control systems experienced the succession of superintendents, although the superintendent of another system became ill, with disorganizing effects on the system. There were generally fewer changes in the principals of schools in the control systems.

The effects of these changes on the influence structures of these systems is shown in Figures 17 and 18. In both 1967 and 1969 teachers and administrators were asked, "In general how much influence do you think the following groups of persons now have in determining educational matters (e.g., curriculum, policy, etc.) in your school?" Response categories ranged from 0 for "none" to 4 for "a great deal"; respondents were asked to rate the local school board, the superintendent, the principal of their school, teachers in general, and a variety of others. Figures 17 and 18 have been prepared by summing the mean ratings for school board, superintendent, principal, and teachers in general, and then dividing each component by the sum. Thus the relative power of each role, using this index, could logically range from 0%, if the mean rating for the role was "none" to 100%, if the mean rating for the one role was greater than "none" and the mean rating for the other three roles was "none." Obviously all roles have at least some influence in each system, and the four role types do not exhause sources of influence, so this index merely represents the relative influence of each of these four roles.

Figures 17 and 18 are triangular diagrams. Each apex of the triangle represents a maximum degree of influence, and the opposite side represents a minimum degree of influence, for the indicated role. Each school system is represented by an arrow in the diagram. The tail of the arrow indicates the score for the system in 1967; the head the score for 1969. In Figure 17 teachers and principals [the relatively "lower participants"] are combined in one dimension, and in Figure 18 the superintendent and school board [the "higher participants"] are combined in one dimension, simply in order to show the relative movement of influence of each system in four dimensions of authority in just two figures.

Figure 17 shows that in System B the Superintendent's role gained greatly in perceived relative influence, mostly at the expense of

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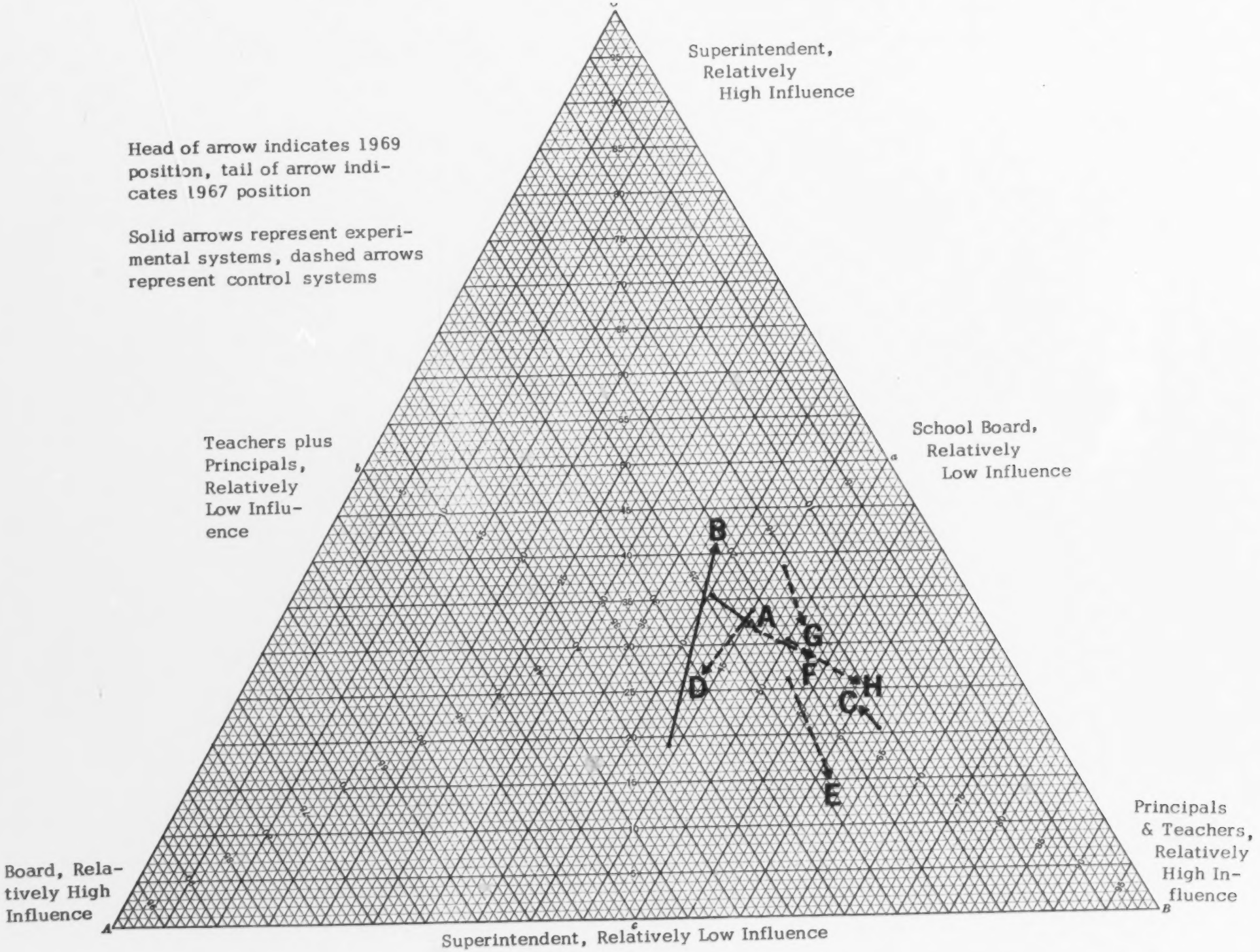

Figure 17

Relative Influence of Board, Superintendent, and Principals Plus Teachers, 1967 and 1969

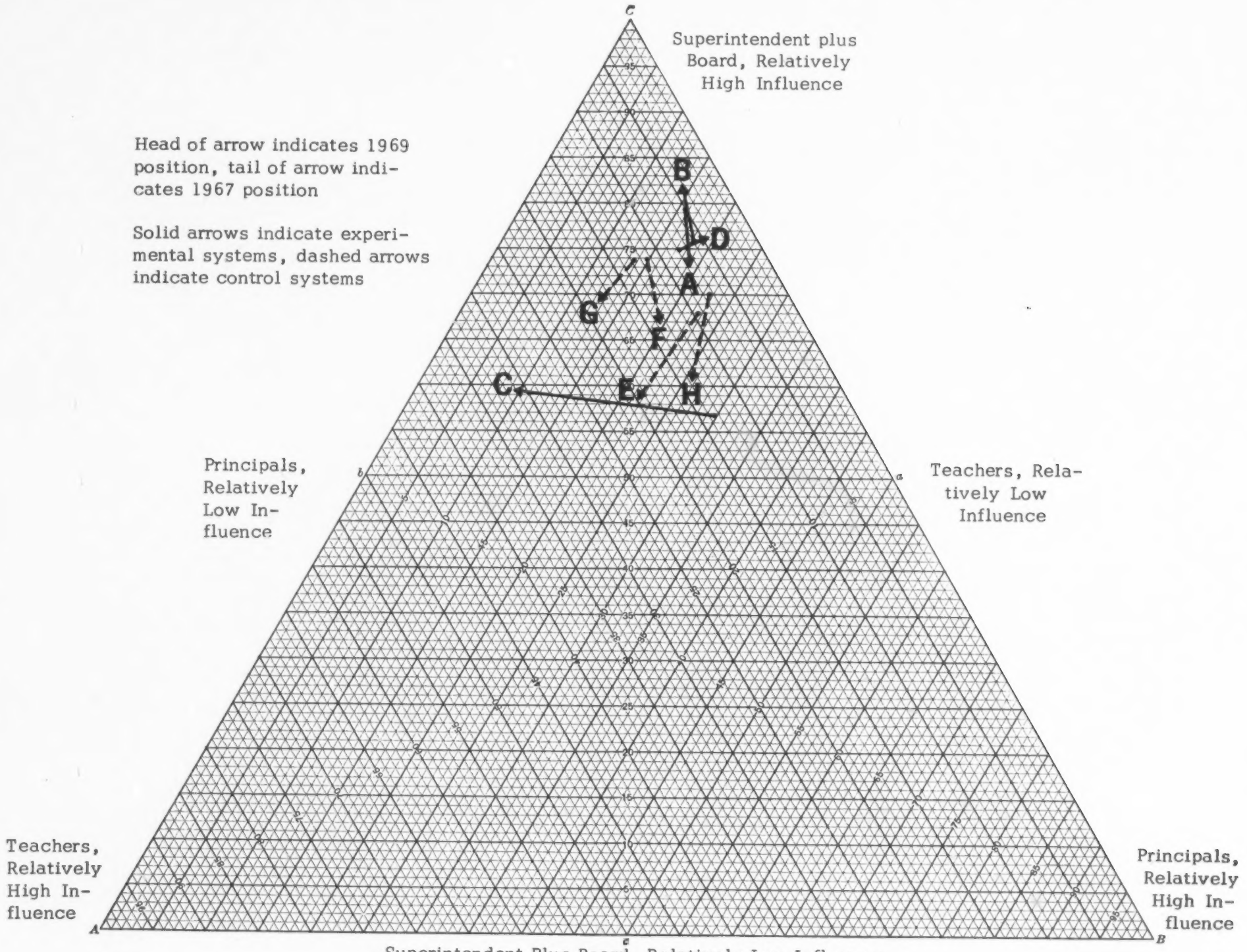

Figure 18

Relative Influence of Board Plus Superintendent, Principals, and Teachers, 1967 and 1969

the role of the school board. In System C, the other experimental system with a new superintendent, the role was perceived to lose influence very slightly. However, Figure 18 shows that in System C teachers were perceived to gain greatly in relative influence, entirely at the expense of principals. That administrative succession does not have uniform effects on authority patterns is also shown by the results for Systems H and D, the two control systems where the superintendent either resigned or became ill. In System H the superintendent role lost influence almost equally to principals and teachers, and in System D the superintendent was perceived to lose influence mostly to the school board. The effects on influence patterns of administrative succession depend upon the characteristics of the predecessor and his successor and also upon the state of the system at the time of succession.

Administrative succession probably has many effects upon other characteristics of school systems of interest, including the formalization of rules, norms about communication, and innovation. Since the PEC Staff did not design the data collection to study the effects of succession, it can only speculate about the effects, although these speculations can be grounded upon prior research and theory (e.g., Gouldner, 1952 and 1954). A succeeding official in any organization is almost certain to be insecure, especially if he is appointed to change some policies of his predecessor. His superiors, not having full confidence in him, will monitor his behavior closely. Lacking informal relations with others in the organization, he will lack many important sources of organizational information. His subordinates are also likely to be insecure, especially if his predecessor has been permissive and democratic. They will tend to attempt to extend their sphere of autonomy in the organization and will withhold information from him if they feel he may act against their interests. In such a situation, the successor is likely to move in two somewhat inconsistent directions: he will try to formalize rules and communication patterns, and he will engage in what Gouldner calls "pseudo-gemeinschaft" behavior with his subordinates, a kind of superficially friendly behavior designed to elicit trust and informal support that is usually treated with skepticism by others. In other words, the administrative successor will often tend to increase some of those aspects of the organization our interventions were designed to diminish: centralization, formalization of authority and communications, and reciprocal distrust. It is likely that these types of behavior will be transitory; as the successor develops confidence and an informal network of work associates, distrust will diminish and the felt importance of centralization and formalization will decline. In school systems this is likely to take at least two years, however.

We hoped that the change-agent teams would be able to assist in the transition process, but they did not, probably because they lacked institutionalization at the time of transition. The succeeding superintendents evidently distrusted these creations of their predecessors and the group at the University of Wisconsin. One joined the change-agent team as its leader, and initially its only other members were principals and other administrators. Only after about a year was he confident enough to include teachers in the team, and during this period the team was relatively ineffective in terms of its stated goals. The other superintendent drastically reorganized the change agent team that was already in existence, although he did not join it himself; both its leader, the director of instruction, and most of its members, were newly appointed or elected. Even so this change-agent team was suspicious of the superintendent. For some time they devoted much of their regular meetings to discussing the extent to which the superintendent would permit them to influence school system policies; skeptical that any effort on their part would have any real effects, they devoted little time to important school system policies, yet they failed to discuss these concerns with the superintendent in an open fashion for more than a year.

A well established change-agent team could perhaps aid in the transition when a new school superintendent assumes office. They might serve as an ideal channel for communicating to him the informal culture of the system and the hopes and fears of its members, and they might serve as a sounding board for his ideas about possible changes in the system. These change-agent teams could not do this, for they were not well established, and the succession of superintendents made it difficult for them to become established.

Teacher Turnover

The turnover of administrators has important and dramatic consequences for several aspects of school systems. Turnover of teachers also has important consequences, although these are not usually as dramatic or visible. More time is required for newcomers to be integrated in primary groups than in the

formal organization; while formal rights and obligations may be quite explicit, informal procedures may be implicit and may be learned only through interaction with friends. Thus, as turnover rates increase, patterns of informal communication are less well developed. This means that high turnover makes it difficult for a school system to transmit its distinctive culture to newcomers and thereby maintain this culture. Furthermore, when high turnover rates exist over a period of time, members of school staffs come to expect it to continue at a high rate, and this means that individuals will lack commitment to the organization and will expect that others will also have little commitment. High turnover rates probably lead to lower levels of reciprocal trust, for there is ordinarily less reason to trust another who has no commitment to one's organization than another who is committed.

Sometimes high turnover makes it easier to change organizations. High turnover makes it difficult to institutionalize change, however, and it also reduces levels of trust and tends to emphasize power based upon formal position rather than upon competence. Thus, high turnover makes it more difficult to change school systems in the ways attempted by the PEC Staff.

One of the experimental systems, System C, had the highest staff turnover in the sample of eight school systems, and System B also had a relatively high rate of turnover. The following table indicates the magnitude of the difference:

Table 5

Staff Turnover and Norms of Schools

School System	Percentage of staff employed in the system less than two years	Percentage of staff hoping to be employed in the same school system in 1974
Experimental Systems:		
System C	34%	46%
System B	32%	52%
System A	25%	60%
Control Systems:		
System E	21%	46%
System G	21%	51%
System D	20%	64%
System H	13%	61%
System F	12%	59%
All Systems	21%	58%

When, as in System C, more than one out of three teachers or administrators have served the system less than two years (with more than one of six currently in their first year of service), and when fewer than half of them hope to be in the same school system five years hence, it becomes extremely difficult to institutionalize new norms regarding trust, cooperation, communication, and innovation. Even if satisfaction with teaching and with administrative leadership is high, as it was in System C, commitment and involvement may be relatively low.

Data Feedback

One important aspect of the original intervention design was the feedback of data from questionnaire surveys to change-agent teams and others in the school systems. The PEC Staff felt this information would be very useful in the participants' efforts to diagnose problems in their schools and in their plans to solve the problems. Thus, after the data from the 1967 survey were compiled, a small portion of the results were discussed at a series of meetings with change-agent teams and others, printed memoranda containing these were distributed, and correspondence concerning data was engaged in.

This data feedback was almost totally without effect on the activities of the change-agent teams or others in the schools. For example, a discussion of teacher morale and its correlates, pointing out the relatively low morale of some groups of teachers in some systems, received polite attention but elicited little discussion. A discussion of administrative succession and its correlates aroused more interest; teachers in systems affected by new superintendents recognized the validity of the material presented and discussed it a little, but only in the session at which the material was presented; it appeared to have little effect on their later work. At another session the great differences in the morale of teachers and students in the two high schools of one of the systems was pointed out. At the time this was noted as a probably correct diagnosis, but again it produced no further discussion or action. (Somewhat later there was a student strike at the high school with low morale; while this suggests that our procedures might have some diagnostic validity, this knowledge is of little gratification, since in fact the data were not used for problem diagnosis or problem-solving.)

Evidently data, however valid they might be, will not be used by change-agent teams or

school administrators unless they have a felt need for the data and the kind of theory of action that will make the data relevant. It is likely that, if data feedback is to be effective, the demands for the data must come initially from the participants, in this case the change-agent teams or school administrators. The problem of stimulating the demand for data has not yet been solved. It seems that presenting some kinds of data does not stimulate demands for other data felt to be of greater immediate relevance. Perhaps such demands will only arise if school personnel feel they have real influence over school policies and if they are in a situation where they must choose between real alternatives and can see the need for information about the alternatives.

Summary

In this section we have presented some evidence showing that our interventions in three school systems has some of the intended effects. The PEC Staff has been unable to provide evidence that these interventions produced greater changes in individuals and school systems exposed to them than in individuals and systems not so exposed. Changes in general norms governing interpersonal relations in school and changes in general orientations to innovation may require greater inputs than were available and longer periods of time than two years. Demonstration that such changes are effective may require statistical or quasi-experimental controls for such major confounding factors as administrative succession and teacher turnover.

How interventions could have been made more effective with the limited resources at the disposal of the PEC Staff is the next consideration.

V
Restrospect and Alternative Futures

This report is a record of two years of cooperative effort between the PEC staff and three school systems. What could have been done differently to have made the effort more productive? We now address ourselves to alternatives to the initial project.

A More "Compelling" Approach Versus the Therapeutic Model

This model, as described above, supports training in interpersonal and problem-solving competencies, and emphasizes the responsibilities of the internal change-agent team to generate targets for change and to improve structures for facilitating change. There may have been too much confidence placed by the PEC staff in process training which assumes a discovery approach to learning rather than the use of the authority of the University expert to instruct personnel in problem-solving. The Staff could have made a more aggressive thrust by directing the attention of school personnel to areas of school life requiring diagnostic effort and systematic planning for change.

A possible shortcoming or distortion of the therapeutic approach regarding the seductiveness of sensitivity training not accompanied by an emphasis upon changing reality was recognized by a staff member and is described in the following memorandum to his colleagues:

> There is possible weakness associated with training for the improvement of interpersonal relations. Such training offers only one component of a strategy to solving practical problems. To develop the point consideration may be given to what is involved in changing a school with the expectation that specific changes will represent improvements. In addition to sensitivity training, problem-solving activities and their improvement as performed by school personnel are strategic. Human relations as embraced in sensitivity training is only one rubric of necessary activity. An accurate statement is that sensitivity training that emphasizes interpersonal relations is a necessary, but not a sufficient activity in an effective strategy for changing a school system. The equally necessary rubric of problem-solving involves several sub-activities: describing and diagnosing reality, formulating problems, identifying needs, deliberate selecting of change targets (characteristics of the school reality that require change), planning and carrying out appropriate actions, evaluating outcomes so as to keep problem-solving in contact with reality, interpretation of data systematically collected about a school system, and similar activities must be mounted by school personnel if changes are to be made successfully. Included also are strategic activities of searching for and installing innovations that offer the prospect of changing the realities that must be changed if problems associated with the internal workings of the school are solved.

It was at this time that the PEC staff provided the change-agent teams with criteria for selecting changes as reported on page 19.

Each school system responded and specific targets were selected. These decisions regarding needed school system improvements as selected by change-agent teams had influence upon training designs. How could the PEC staff have been more forthright and helpful, follow through with more dispatch, and help the teams to become effective without the investment of more time and energy? Effective instruction involves motivation and self-direction of the learner that is facilitated by the instructor. The PEC staff's position is

that only the internal structure can make such decisions as represented by the criteria, but that the external structure may have to "strongly" suggest that such focusing upon decision-making is necessary.

Improvement of Change-Agent Team Structure

The status of change-agent teams in Systems B and C was in doubt at times. Both groups lacked continuity of membership. System B did not have vertical role representation. The group was composed primarily of high school representatives with an elementary principal as a liaison for a short period of time. This was only a gesture toward the concept of a system-wide team. In School C the central change-agent team enabled building teams to be formed. There was, however, a lack of coordination at the system level which was due, in part, to the fact that the central administrative staff members saw the school system as being small and not needing a systematically operated structure to introduce and implement change.

Additional community involvement in change-agent team activities would have been desirable. System C found that perceptions in their community indicated that the school system was possibly too innovative. Helping community leadership to see goals and assist in setting expectations for the school is an important aspect of change and improvement.

System A had a school board member on the change-agent team. This is one way to provide a link between schools and the community. Another way is to create problem-solving teams that include parents and pupils at the building level. This involvement of students and parents is calculated to open doors for more community, school, and professional dialogue-inquiry-action.

Improvement of Human Development Laboratory Sessions

A mood of indecisiveness was projected at times by the PEC staff whose members were as dependent upon the change-agent teams as the teams were upon them. This was due, in part, to the group's own risk-taking efforts. The staff needed the opportunity, which the project provided, to explore techniques and to develop training designs. For example: the locus of decision-making instrument was invented by the staff and non-verbal exercises were adapted to school teachers and administrators by the staff. If a similar project was done again, members of this group could act with more confidence, greater sensitivity and expertness at critical points in developing and executing training sessions. A body of funded experiences has been formed that would be useful to school people and human-relations trainer-consultants who are contemplating such a project. This report itself is designed to be helpful in the transfer process.

Would additional or longer training laboratories have produced more penetrating effects? One and one-half days is not much time for a session of this kind. Systems intending to use this type of training might find ways to create a greater training density than short sessions produce. The kind of schedule reported here did work well in the three systems. It is calculated that such is possible and compatible with the norms of many systems. When limited experience with training is seen as valuable, perhaps the norms could be changed to allow for three to five days for training laboratory, thus extending the benefits of a greater training impact upon members of the change-agent team and their colleagues.

There could have been advanced laboratory training sessions for the change-agent teams. During the second year of the project the teams themselves had no laboratory experiences for improving their own processes, although there were efforts made by the PEC staff to help the change-agent team in System B work through its authority problems with the new superintendent. The members of the change-agent team in School System A felt the need for additional training but never implemented their own diagnosis.

Maximum learning requires experience in the full sequence of the dialogue-inquiry-action model described and illustrated on pages 6-10. The teams had only limited opportunity for experiencing the full cycle. There were few instances in which reality changes came about as a result of the problem-solving activities. The administrative additions made in System A after a training laboratory was a success experience for the team and their colleagues as was the training day for the high school faculty in System B. These were probably the most visible successes of any of the three teams. Had there been a greater number of successful experiences in carrying through the full process, the training would have been more effective.

More Meaningful Data Analysis

There could have been more focused training sequences for change-agent team members

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involving them in the collection and interpretation of data. Involvement through training and action in planning data collection would have given teams an opportunity to determine questions to which they wanted answers. Data analysis would then have likely become more relevant and useful to the change-agent team.

Providing Additional Technical Consultation

The PEC staff could have suggested and encouraged the use of consultants in the implementation of various changes selected by the change-agent teams: Introduction of Independent Study, System A; development of a PERT chart for the conversion from High School A to High School B in two years, System B; implementation of Non-Graded and Unitized Elementary Schools, System C. Systems A and C did use consultants on two occasions. Additional attention could have been given with profit, however, to enabling the teams to define needs, state questions, and utilize outside resources and consultant services.

Failures to Create Structural Changes

Creation of three new structures within the school systems were projected at the outset of the planned change project and were never realized. The development of a structure for environmental scanning or reconnaissance; introducing and operating such mechanism to find innovations in school environments (including neighboring schools, research and development centers, etc.) was projected as a functional outcome of the change-agent teams and might have been associated with a complementary mechanism within the Wisconsin Department of Public Instruction to provide basic information to the local school system upon request. This local mechanism coordinated with a state-wide facility is still believed to be important. Through systematic searching for innovations and gathering of information regarding their educational capabilities and applications, a school system could enrich its problem-solving cycle at the point of considering alternative innovations for changing the reality in a desirable direction. Such institutionalized mechanism would represent important facilitation structures for assuring continuous self-renewal of a school system. Competent personnel and budgetary allowances would be required for this type of structure.

Establishment of a mechanism within the school system for the continuous assessment of needs and problems that suggest changes in processes, new structures, and learning-teaching instrumentation was also projected. Such a mechanism would provide decision-makers with a rational basis for selecting and trying innovations that could be made visible through the reconnaissance in the scanning function described above. The change-agent teams have functioned in a preliminary and exploratory manner as the initiating structure of such a mechanism, but no system implemented a well designed structure during the course of the project.

Involving professional staff members and organizing an office within a school system to carry out the training function represents another potential structure that might have been initiated. Staff members operating as trainer-consultants could then be available to professional and student groups when confronted with the need to become more sensitive to their own functioning as a group, more aware of interpersonal relations, more thoughtful in introducing changes, and more skillful in applying a problem-solving approach to various situations. One school system considered the training of its present staff members at the outset of the project but was never able to carry it out due to a lack of allocated funds. School System A has this matter under advisement.

VI
Summary

Two points can be made in summary, an observation from experience in changing the business-industrial type of organization and a limited but positive statement regarding the project. It is Likert's (1961) observation that neither the testing of a theory nor the shifting of an organization to a full-scale application of the theory can be hurried. There is no substitute for ample time to enable the members of an organization to reach a level of skillful and easy habitual use of new practices. He maintains that a period of two or three years is usually required to introduce a major change in an organization with less than 200 members and believes that in organizations with more than 200 or 300 employes an additional five or more years may be required to bring about substantial changes. Consequently additional time may be needed to determine the full effects of this project and it may be that an expectation of the two-year cycle is not sufficient for institutionalizing new structures and processes at a level of maximum effectiveness. It should probably be increased to at least four years of cooperative effort between an outside agency such as PEC and a school system to introduce and institutionalize new structure for change. Continuous effort over a period of time is required and a greater saturation of training is needed than occured in any system, including System A.

There is some suggestive positive evidence regarding the relationship between innovativeness in a school system and the functioning of the change-agent team and the utilization of laboratory training with personnel. System A moved over a period of two years in its innovativeness two positions in rank order within the eight school systems sample, while its companion system, as far as size was concerned, lost in innovativeness. System A developed the most ideal conforming change-agent team and made the greatest investment in training. This in itself suggests the value of the change-agent team and laboratory training.

Recommendations

It is the conclusion of the staff that while certain activities might have been done more effectively, the approach of PEC promises long-term lasting effects that a more highly engineered approach from the outside might not offer. The school is in an environment in which a result and usually a quick result is expected by a pragmatic society. More attention is needed to developing competencies in interpersonal relations and problem-solving skills which will give more substantive and lasting results in the future. These competencies represent the capital human resources for a better future. Those persons associated with school development should resist efforts to make a show too quickly in favor of a less spectacular approach that emphasizes processes and the development of people.

The three change-agent teams have continued to function within their respective school systems after the completion of the Planned Change Project, thus demonstrating that members of these groups and school system officials believe there is value in the creation and maintenance of a structure for change within school systems. The authors recommend, as an alternative to the preservation of a status quo of questionable value in our schools, the creation of change-agent teams, adapted to meet the needs of individual school systems and evaluated as to functions and purposes, and the use of laboratory training as developed and applied in the project described above.

Notes

[1]The autoplastic versus the alloplastic is a major issue in the theory of instruction as presented by Richard M. Jones in his analysis of Jerome S. Bruner's emphasis upon the alloplastic. See Jones' Fantasy and Feelings in Education, New York: New York University Press, 1968, p. 109 and p. 123. Jones and Bruner apply the terms to growth of the individual. The present authors have adapted the concepts and applied them to system change phenomena in connection with the therapeutic model.

[2]A term used interchangeably with dialogue-inquiry-action in the text is "problem solving." Very few, if any, human situations can be reduced to a one-problem analysis. The actuality of problem solving requires the merging of cooperative inquiries and dialogue among group members. Since the formulation of a problem is only one step in the larger process of changing reality, the more descriptive term, "dialogue-inquiry-action," is preferred.

[3]The eleven items were as follows; some were added, some subtracted, in computing the total score as indicated:

SHOULD ONE:

+ 1. Tell colleagues what you really think of their work.

+ 2. Disagree with your superior if you happen to know more about the issue than he does.

+ 3. Push for new ideas, even if they are vague or unusual.

+ 4. Ask others to tell you what they really think of your work.

+ 5. Point out other people's mistakes, to improve working effectiveness.

+ 6. Try out new ways of doing things even if it's uncertain how they will work out.

- 7. Stay "cool"—keep your distance from others.

+ 8. Set up committees which bypass or cut across usual channels or lines of authority.

- 9. Be skeptical about accepting unusual or "way out" ideas.

-10. Tell other people what they want to hear, rather than what you really think.

+11. Trust others to be helpful when you admit you have problems.

The response "I feel you should," was scored 2; "I feel you should not" was scored 0; and "No feeling one way or the other" was scored 1. Psychometric data on a nearly identical index is presented in Hilfiker (1969).

[4]The eight items were as follows; some were added, some subtracted, in computing the total score, in the indicated manner. The wording of the five response categories was changed between 1967 and 1969 as indicated above.

+ 1. I find my job very exciting and rewarding.

- 2. I am just a cog in the machinery of this school.

+ 3. I feel involved in a lot of activities that go on in this school.

- 4. I do things at school that I wouldn't do if it were up to me.

- 5. I really don't feel satisfied with a lot of things that go on in this school.

- 6. In the long run, it is better to be minimally involved in school affairs.

+ 7. I have a lot of influence with my colleagues on educational matters.

+ 8. I feel close to other teachers in this school.

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